OLD FAITHFUL PROTECTION ACT OF 1993

Y 4.R 31/3:103-21

HEARING

Old Faithful Protection Act of 1993...

ORE THE

SUBCOMMITTEE ON
ENERGY AND NATURAL RESOURCES
AND THE
SUBCOMMITTEE ON
NATIONAL PARKS, FORESTS AND PUBLIC LANDS
OF THE
COMMITTEE ON
NATURAL RESOURCES
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

ON

H.R. 1137

TO AMEND THE GEOTHERMAL STEAM ACT OF 1970 (30 U.S.C. 1001–1027), AND FOR OTHER PURPOSES

HEARING HELD IN WASHINGTON, DC
APRIL 22, 1993

Serial No. 103–21

Printed for the use of the Committee on Natural Resources

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CONTENTS

Page

Hearing held: April 22, 1993 1
Text of the bill: H.R. 1137 2
Member statements:
  Hon. Richard H. Lehman 1
  Hon. Bruce F. Vento 6
  Hon. Nick J. Rahall II 9
  Hon. Pat Williams 10
Witness statements:
  Panel consisting of:
    Dr. Dennis Fenn, Deputy Associate Director, Natural Resources, National Park Service, Department of the Interior 15
    Chris Tweeten, Esq., chief deputy attorney general, State of Montana, and chairman, Montana Reserved Water Rights Compact Commission, accompanied by Barbara Cousins, legal counsel, Montana Reserved Water Rights Compact Commission, and Susan Cottingham, staff director 23
    Mark S. Simonich, director, Montana Department of Natural Resources and Conservation, State of Montana 32
  Edward L. Francis, vice president, Church Universal and Triumphant, Inc., Corwin Springs, MT 67
  Panel consisting of:
    Michael D. Scott, Northern Rockies regional director, The Wilderness Society 87
    Elizabeth Fayad, staff counsel, National Parks and Conservation Association 97
    Louisa L. Willcox, program director, Greater Yellowstone Coalition 102
Additional material submitted for the hearing record from:
  Dr. Dennis Fenn, Deputy Associate Director, Natural Resources, National Park Service, Department of the Interior: "Corwin Springs Known Geothermal Resource Area Impact Analysis: Report to Congress" dated August 1991 37

APPENDIX

April 22, 1993

Additional material submitted for the hearing record from:
  Hon. James V. Hansen: Prepared statement 129
  National Park Service, Department of the Interior: Prepared statement of Owen R. Williams, Reserves Water Rights Compact Negotiation Team Spokesperson on House Bill 692 dated April 7, 1993 133
  Upper Yellowstone Defense Fund, Gardiner, MT: Prepared statement of Julia Page, president 153
  Doney, Crowley & Shontz, counsel for the Church Universal and Triumphant, Inc., on water law matters: Letter from Ted J. Doney, Esq., to Hon. Dale Bumpers, chairman, Senate Subcommittee on Public Lands, National Parks and Forests, dated June 29, 1992 155

H.R. 1137 TO AMEND THE GEOTHERMAL STEAM ACT OF 1970

THURSDAY, APRIL 22, 1993

House of Representatives, Subcommittee on Energy and Mineral Resources and Subcommittee on National Parks, Forests and Public Lands, Committee on Natural Resources,

Washington, DC.

The Subcommittees met at 10:05 a.m. in room 1324 of the Longworth House Office Building, the Hon. Richard H. Lehman and the Hon. Bruce F. Vento (chairmen of the Subcommittees) presiding.

STATEMENT OF HON. RICHARD H. LEHMAN

Mr. Lehman [presiding]. This morning the Subcommittee on Energy and Mineral Resources is meeting to conduct a joint hearing with the National Parks, Forests and Public Lands Subcommittee, chaired by Mr. Vento, on H.R. 1137, a bill to amend the Geothermal Steam Act of 1970. The bill was introduced by Representative Pat Williams. The purpose of this legislation is to prohibit the use or development of geothermal resources in a 15-mile band around Yellowstone National Park, in order to protect the park's significant thermal features, such as Mammoth Hot Springs.

[The bill, H.R. 1137, follows:]

I

103D CONGRESS
1ST SESSION

H. R. 1137

To amend the Geothermal Steam Act of 1970 (30 U.S.C. 1001–1027), and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 24, 1993

Mr. WILLIAMS introduced the following bill; which was referred to the Committee on Natural Resources

---

A BILL

To amend the Geothermal Steam Act of 1970 (30 U.S.C. 1001–1027), and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Old Faithful Protection Act of 1993".

SEC. 2. AMENDMENTS TO GEOTHERMAL STEAM ACT.

The Geothermal Steam Act of 1970 (30 U.S.C. 1001 and following) is amended by adding the following new sections:

"SEC. 30. The Congress hereby declares that any use of, or production from, any existing geothermal well, or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources within the Corwin Springs Known Geothermal Resource Area (as designated in the July 22, 1975, Federal Register (Fed. Reg. Vol. 40, No. 141)) will result in adverse effects on significant thermal features in Yellowstone National Park. Notwithstanding any other provision of law to the contrary, the Secretary shall prohibit any use of, or production from, any existing geothermal well or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources within the Corwin Springs Known Geothermal Resource Area, including lands and waters and interests or rights in such lands and waters not owned by the United States. For the purposes of this section, the term 'geothermal well' means a well for geothermal steam and associated geothermal resources.

"SEC. 31. The Secretary shall not issue any lease under this Act for lands within a 15-mile radius of the boundary of Yellowstone National Park. Nothing in this section shall be construed to affect the ban or prohibition referenced under section 28(f) and section 30.".

SEC. 3. MORATORIUM AND STUDY.

(a) Any use of, or production from, any existing geothermal well, or any exploration for, or development of, any new geothermal well or any facility related to the use of subsurface geothermal resources is prohibited on lands and waters and interests or rights in such lands and waters not owned by the United States, within a 15-mile radius of the boundary of Yellowstone National Park, except with respect to the Island Park Geothermal Area (as designated by the map in the "Final Environmental Impact Statement of the Island Park Geothermal Area" (January 15, 1980, p. XI)), to which such prohibition shall apply to lands and waters and interests or rights in such lands and waters not owned by the United States within the full extent of such Area, until 180 days after the receipt by Congress of the study referred to in subsection (b). Nothing in this section shall be construed to affect the ban or prohibitions referenced under section 28(f), section 30, and section 31 of the Geothermal Steam Act of 1970.

(b) The National Park Service, in consultation with the Forest Service and the United States Geological Survey, shall conduct a study on the impact of potential geothermal development on the thermal features of Yellowstone National Park. Such study shall not include the area referred to under section 30 of the Geothermal Steam Act of 1970, and shall not include Federal lands within the areas referred to in section 28(f) and section 31 of such Act. The study shall be submitted to Congress no later than 4 years after the date of enactment of this Act.

○

Mr. LEHMAN. The Geothermal Steam Act Amendments of 1988 established a moratorium on development in this area, which expired in April 1992, and the area is again vulnerable to exploitation. H.R. 1137 is a statement that the Federal Government cannot tolerate threats to the unique features of our park.

A similar bill was introduced in the 102nd Congress, and the essential issue remains. How can the Federal Government most completely protect the aspects of Yellowstone National Park that distinguish it as one of only two places in the world with intact active geysers? All other geothermal sites have been developed to the point of depletion.

I take a personal interest in this legislation. I have three national parks in my own district and believe their protection is essential to the national interest. In 1984, I fought efforts by the city of San Francisco to raise the height of Hetch Hetchy Dam, located within Yosemite National Park in my own district. I firmly believed then as I do now that the city had no right to further drown pristine parkland without approval by Congress. The city was not entitled to expand the dam and spoil the park because they needed more water.

The situation in Yellowstone is not unlike the situation in Yosemite. Yellowstone Park is a priceless Federal resource for which there exists a Federal reserved water right dating back to 1872. Development threatens to encroach on—and potentially destroy—Yellowstone's natural beauty. However, in this case, the State of Montana, in cooperation with the National Park Service, has negotiated a compact to perfect that Federal reserved water right. The perfected right will, I feel, provide the park with the "no risk" protection it needs.

But there is the matter of the existing development that is not eliminated by the compact. There is also the issue of other States, like Idaho and Wyoming, that contain or border the park. It is for these reasons that H.R. 1137 remains a Federal imperative. I believe the State has done a tremendous job in developing this compact and that its expected passage by the State legislature will be a tribute to its soundness. A deeply held belief that the thermal features of Yellowstone are too precious to lose was its driving force. The same driving force is behind the legislation for which this hearing is being held today.

I welcome each of our witnesses and certainly look forward to what I think will be a valuable hearing, and I would like to turn it over to the chairman of the parks Subcommittee, Mr. Vento.

STATEMENT OF HON. BRUCE F. VENTO

Mr. VENTO. Well, thank you, Mr. Chairman, and I commend you for putting together this hearing. Obviously the new responsibilities that you have are significant, and we are pleased to have your help with the Natural Resources Committee in this leadership role.

Today is Earth Day, a day that we attempt to look to the ideal of preserving that which is natural in our environment and conserving that which we use and trying to restore that which has been damaged. So I think it is fitting that we hold a hearing on this topic, especially with the problems that have surfaced and continue to surface with regard to the threats to Yellowstone, a reserve that was set aside over 100 years ago.

I think that our predecessors thought that they were setting this aside and preserving it for a long time, but as we march forward and gain more information, we find that the early attempts to do it in finally making it a National Park were not adequate unless we deal with the new information and understanding that we have.

Nearly every place in the world on all the continents where we have geothermal features of the magnitude and fields like exist in the Yellowstone area have been destroyed because man tried to use them for energy and for other purposes. I guess there is still one in Russia that is hanging on.

I think that is really what is behind this. I know that, good intentions aside, the fact is that the water rights and these other features really are at risk. We run the risk of Old Faithful, unless we are faithful to it, being turned off forever. We know that there are many aspects of this we don't understand, and I think that it is important that we attempt to move forward.

I want to commend my colleague from Montana, who has been persistent in the face of some divergent views with regard to this issue and for persisting to work for preservation of this resource, this very significant resource in his area, and I look forward to working with him and with the Subcommittee. Hopefully, we will bring this to a conclusion in this session of Congress and protect America's heritage and the features that make Yellowstone such an outstanding plateau in our Western topography.

Thank you, Mr. Chairman, and I would yield back my time.

[Prepared statement of Mr. Vento follows:]

OPENING STATEMENT CONGRESSMAN BRUCE F. VENTO

I want to thank Representative Lehman, the new chairman of the Energy and Mineral Resources Subcommittee for his efforts and leadership in putting together this joint hearing. In the last Congress our two subcommittees held an extensive and informative hearing on the Yellowstone geothermal issue. The House subsequently passed legislation, reported from our committee, to protect Yellowstone National Park's geothermal resources. Unfortunately, the Senate did not pass the lsgislation, so it did not become law. This year H.R. 1137, again introduced by our colleague, Representative Williams, would amend the Geothermal Steam Act of 1970 to protect these precious resources.

Yellowstone National Park would simply not be Yellowstone without its geothermal features. We must be faithful to Old Faithful and not risk turning it off forever. Today, we only know enough about these kinds of resources to know that we, in fact, know very little about them. The complex interconnections in the Yellowstone Geyser Basin are only beginning to be understood. Risking damage to such unique resources—and the tourist dollars that they attract—for some hot baths and as a minor energy source makes little or no sense. For this reason, a moratorium for the next 4 years on geothermal exploration and production while the National Park Service, in consultation with the Forest Service and the U.S. Geological Survey, studies this area is imperative.

I understand that the National Park Service and the State of Montana have been diligently working to negotiate a compact for the Federal reserved water rights of Yellowstone, and understand that the Montana State Legislature is expected to act on it quite soon. I look forward to learning more about that matter and how it addresses the issues raised by the legislation before us.

I want to commend my Subcommittee colleague, Representative Williams, for his initiative and perseverance in protecting the geothermal resources of Yellowstone National Park. I endorse this legislation and look forward to working with the Clinton administration to see it enacted into law.

Mr. VENTO. I would ask unanimous consent that all the statements of the members and witnesses in their entirety be placed in the record, including one by our colleague, Mr. Rahall, your predecessor as chairman of the Energy and Mineral Resources Subcommittee.

Mr. LEHMAN. Without objection, we will put all of those in the record including Mr. Rahall's.

[Prepared statement of Mr. Rahall follows:]

STATEMENT OF U.S. REP. NICK J. RAHALL, II
before the joint hearing by the
Subcommittee on Energy and Mineral Resources
Subcommittee on Parks, Forests and Public Lands
H.R. 1137 - "Old Faithful Protection Act of 1993"

****

I would like to first commend the gentleman from Montana, Pat Williams, for his tenacity in pursuing this legislation. For at stake in this debate is the integrity of some of the most cherished natural features in the American landscape: the geysers of Yellowstone National Park.

Last year, in my capacity as chairman of the Mining and Natural Resources Subcommittee, I had the privilege of managing the predecessor of H.R. 1137 through the Committee and the House. At that time, from certain quarters of this Committee we were continuously subjected to what almost appears to be their mantra: this is a takings, takings, takings, this is a takings, takings, takings, this is a takings, takings, takings.

What I suspected then, and what I now know for a fact in my new capacity as chairman of the Surface Transportation Subcommittee, is that this is an allegation of convenience. It is uttered by some against natural resource protection legislation. I have yet to hear it when it comes to development proposals.

Obviously, in order to build an interstate highway the potential for a taking of private property exists. Some would say that this concern is superseded by the fact that having a system of interstate highways is in the national interest. That national interest must outweigh other concerns. I would agree with this.

But I would also as strongly maintain that protecting the geyser system of Yellowstone National Park from the encroachments of a few is in the national interest as well.

We have an axiom in the Public Works and Transportation Committee that there are no Republican roads or Democrat roads. Here, in the Natural Resources Committee, I would say that Old Faithful is not a Democrat geyser or a Republican geyser. It is a national treasure, and it is incumbent upon us to protect it not only for the benefit of the present, but future generations of Americans as well.

Mr. LEHMAN. We will recognize Mr. Williams.
Mr. VENTO. Happy Earth Day, Mr. Chairman.
Mr. LEHMAN. Happy Earth Day.

STATEMENT OF HON. PAT WILLIAMS

Mr. WILLIAMS. Thank you, Mr. Chairman. On this Earth Day 1993 it is fitting that the Natural Resources Committee would have this legislation as the centerpiece in recognizing Earth Day and it is a fitting day to launch this Congress's efforts to protect America's first national park.

I thank both Subcommittees for moving quickly to consider this legislation, which intends to protect the geothermal features of Yellowstone National Park.

The continued evolution of the Yellowstone caldera undisturbed in a pristine environment is a true thermometer of the health of both that piece of Earth and really, I think, the soul of our society. In a very real way, our struggle to protect Old Faithful and the geysers, hot pools, and wonderful geothermal features of Yellowstone National Park reflects the basic understanding of Nature's importance and value. And this Committee's work to preserve these features is only a part of the commitment and cooperation necessary if America really means to protect our national treasures for future generations.

The regular eruptions of Yellowstone's geysers and this Nation's investment in their preservation are as much a symbol of America and the American spirit as is the Statue of Liberty or the cowboy or that first step on the moon. As you know, the Old Faithful Protection Act received overwhelming bipartisan support here in the House early last Congress. And although it was hard for me to imagine anyone having trouble with the protection of the geothermal features of Yellowstone's first national park, the Senate in fact did not act on the House bill, and we are now left with no clear policy on the protection of Yellowstone's geysers and hot pools, the largest intact geyser basin left in the world. So we will try again in this Congress.

The legislation we consider today is identical to the bill that passed the House last session. However, the situation this legislation addresses is not the same as it was a year ago. There has been action now by the State of Montana in actually allowing a withdrawal of geothermal water adjacent to Yellowstone. That permitting and withdrawal had not happened the last time these Committees met on this bill.

And there is another situation that is different now. Just this month, the Montana Legislature adopted a water compact that will have a positive effect on protecting Yellowstone.

So I anticipate that amendments reflecting this new set of realities will be considered before the legislation is adopted, and I remain open to those discussions and to any suggestions as to how we best proceed in defining the Federal role. I am sure we will hear discussions of changes from folks who will testify today, and we will need to look at all those suggestions carefully.

There is a clear need for a Federal policy, and as we set that policy, we must seek to keep it direct, enforceable to States' rights, and it must be on a no-risk standard. Let me say that again. The bill that finally becomes law must have an ironclad, copper-riveted, zero-risk policy toward Yellowstone National Park—period. And according to Secretary Babbitt, the President will sign nothing less.

Let me discuss some of the changes that have occurred since the House action and how they affect this consideration.

The Montana State-Federal compact provides less protection than this legislation in only one way, and that is in the handling of existing subsurface developments. Until just recently, the areas of concern adjacent to Yellowstone were essentially undeveloped, and there was already Federal action to prohibit development on Federal lands in Island Park, Idaho.

The fact that no one had established a right to use hot water resources adjacent to Yellowstone made the articulation of a strong Federal policy of "no subsurface development" possible. Montana's inability to control permits below 35 gallons a minute exposed the flaw in my State's law and led to the recent permitting which I mentioned earlier of a 35-gallon-a-minute well in the Corwin Springs area just outside of Yellowstone in Montana.

Now, the water compact which recently passed closes the 35-gallon-a-minute loophole, but it does not address the existing well that was permitted before the compact passed.

I look forward to hearing from the owner of that well, who was kind enough to come at our recommendation again today and be here, and I also look forward to any recommendations that the Park Service may have on that specific point.

One area that has not changed since last Congress and points toward the need for legislation is the degree of protection being offered by the other States adjacent to Yellowstone. Wyoming is essentially without any process to protect Yellowstone—no process. Idaho's legal framework is just now being defined and deals with a very narrow area of regulation. No clear State direction exists outside Montana.

The U.S. Senate was interested in assuring an appropriate State role that maintains State control of cold water permitting. I believe the Senate's concerns can be addressed, and addressed without eroding the Federal mandate to protect Yellowstone.

So, I say to both of my chairmen, it is important work that we are about on this Earth Day. A clear Federal policy regarding geothermal leasing is not just important to Yellowstone. There are other nationally significant geothermal resources in the United States. In fact, they are listed in the Federal Geothermal Steam Act. An aggressive approach for Yellowstone will set the stage for protecting all of those resources.

One of the pastimes I have found that comes with this issue is the collection of dead geyser stories. When one follows the science of geothermal development, one comes across more dead geyser accounts than you might think. These stories and the number of them clearly show how fragile natural geysers are and how energy development does one thing to them: destroys them.

I once was impressed, in talking with a gentleman from the Soviet Union, who was discussing the Soviet experience about the loss of geysers, and he was hoping that the few they had left could be maintained. All of a sudden he stopped short and looked over at me and said, "Surely Yellowstone is protected, isn't it?" Well, I am hopeful that before this Congress is out we can proudly say "yes."

Thank you.

[Prepared statement of Mr. Williams follows:]

CONGRESSMAN PAT WILLIAMS

April 22, 1993

statement before

NATURAL RESOURCE COMMITTEE

JOINT HEARING

THE OLD FAITHFUL PROTECTION ACT

This is Earth Day 1993. It is a fitting day to launch this Congress' efforts to protect America's first National Park.

I thank both subcommittees for moving quickly this Congress to consider my legislation regarding the protection of the Geothermal features of Yellowstone National Park. The continued evolution of the Yellowstone Caldera undisturbed, in a pristine environment, is a true thermometer of the health of both our piece of the earth and the soil of our society. In a very real way our struggle to protect Old Faithful and the geysers, hot pools and geothermal features of Yellowstone reflects our basic understanding of nature's importance and value. This committee's work to preserve these features is only a part of the commitment and cooperation necessary if America really means to protect our national treasures for future generations. The regular eruptions of Yellowstone's geysers and this nations' investment in their preservation are as much a symbol of America and the American spirit as is the Statue of Liberty, the cowboy, or that first step on the moon.

As you know, the Old Faithful Protection Act received overwhelming bipartisan support here in the House early last Congress. And, although it is hard to imagine someone having trouble with the protection of the geothermal features of this nation's first National Park, the Senate, in fact, did not act on the House bill and we were left with no clear policy on the protection of Yellowstone's geysers and hot pools -- the largest intact geyser basin in the world.

So we will try again this Congress. The legislation we consider today is identical to the bill that passed the House last session. However, the situation this legislation addresses is not the same as it was a year ago. There has been action by the State of Montana in actually allowing a withdrawal of geothermal water adjacent to Yellowstone. And just this month the Montana legislature adopted a water compact that has a positive effect on protecting Yellowstone.

I anticipate that amendments reflecting this new set of realities will be considered before legislation is adopted. I remain open to those discussions and to any suggestions on how we best proceed in defining the federal role. I'm sure we will hear discussion of changes from folks who will testify today and we will need to look at all those suggestions carefully. There is a clear need for a Federal policy, and as we set that policy we must seek to keep it direct, enforceable to State rights, and it must be on a "no risk" standard -- that is we must have an iron clad, copper riveted, no risk policy toward Yellowstone Park.

Let me discuss some of the changes that have occurred since the House action and how they affect this consideration.

The Montana State/Federal Compact provides less protection than this legislation in only one way, and that is in the handling of existing subsurface developments. Until just recently the areas of concern adjacent to Yellowstone were essentially undeveloped and there was already federal action to prohibit development on federal land in Island Park, Idaho. The fact that no one had established a right to use hot water resources adjacent to Yellowstone made the articulation of a strong federal policy of no subsurface development possible. Montana's inability to control permits below 35 gallons a minute exposed the flaw in my state's law and lead to the recent permitting of a 35 gallon a minute well in the Corwin Springs KGRA. The Water Compact for Montana closes the 35 gallons a minute loophole but it does not address the existing well. I look forward to hearing from the owner of that well, who will testify here today, and any thoughts the Park Service may have on this issues.

One area that has not changed since last Congress, and points toward the need for legislation, is in the degree of protection being offered by the other states adjacent to Yellowstone Park. Wyoming is essentially without any process to protect Yellowstone. Idaho's legal framework is just being defined and deals with a narrow area of regulation. No clear state direction exists outside of Montana. The Senate was interested in assuring an appropriate State role that maintains State control of cold water permitting. I believe the Senate's concerns can be addressed, and addressed without eroding the Federal mandate to protect the Park.

It is important work we are about this Earth Day. A clear Federal policy regarding geothermal leasing is not just important to Yellowstone. There are other nationally significant geothermal resources. In fact, they are listed in the Geothermal Steam Act. An aggressive approach for Yellowstone will set the stage for protection of all these resources.

One of the pastimes that comes with this issue is the collecting of "dead geyser" stories. In following the science of geothermal development one comes across more dead geyser accounts than you might think. These stories clearly show how fragile natural geyser systems are, and how energy development does destroy them. I once was impressed by a gentleman from the Soviet Union who was discussing the Soviet experience with the loss of geysers and their hopes for preservation of those that remained. Abruptly he asked with some desperation, "Yellowstone is protected, isn't it?"

By the end of this Congress I hope we can proudly say yes.

I look forward to the testimony today and to the work ahead.

Mr. LEHMAN. Thank you very much.

Mr. Hinchey, do you have an opening statement?

Mr. HINCHEY. No, Mr. Chairman.

Mr. LEHMAN. Thank you very much.

PANEL CONSISTING OF DR. DENNIS FENN, DEPUTY ASSOCIATE DIRECTOR, NATURAL RESOURCES, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR; CHRIS TWEETEN, ESQ., CHIEF DEPUTY ATTORNEY GENERAL, STATE OF MONTANA, AND CHAIRMAN, MONTANA RESERVED WATER RIGHTS COMPACT COMMISSION, ACCOMPANIED BY BARBARA COUSINS, LEGAL COUNSEL, MONTANA RESERVED WATER RIGHTS COMPACT COMMISSION, AND SUSAN COTTINGHAM, STAFF DIRECTOR; AND MARK S. SIMONICH, DIRECTOR, MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION, STATE OF MONTANA

Mr. LEHMAN. With that, we will move to panel number one, and I would ask them to come forward right now. Dr. Fenn, Mr. Tweeten, and Mr. Simonich.

Gentlemen, without objection, we will place your entire statements in the record today and ask you to summarize them.

We will begin with Dr. Fenn, the Deputy Associate Director for Natural Resources for the National Park Service.

STATEMENT OF DR. DENNIS FENN

Dr. FENN. Thank you, Mr. Chairman. We appreciate the opportunity to appear before you today, before these two Subcommittees, to testify on H.R. 1137, a bill to amend the Geothermal Steam Act of 1970.

We strongly support the purposes of H.R. 1137 and will continue to work with Mr. Williams's staff as well as the Committee in an effort to develop specific language that fully protects the significant thermal features of Yellowstone National Park yet allows for the reasonable and efficient implementation by both the Secretary and the States of Montana, Idaho, and Wyoming.

Mr. Chairman, the Geothermal Steam Act of 1970 was enacted following several unsuccessful attempts in earlier Congresses to provide a clear-cut framework to govern the commercial development of geothermal steam and associated resources underlying the public lands. It was intended to provide authority to the Secretary of the Interior to lease these Federal lands for the development of such resources, in much the same manner as authority existed to lease these same lands for development of oil and gas deposits.

Certain lands, including national parks and monuments, were specifically exempted from leasing under the provisions of the 1970 act. The Committee Report specifically stated that it was the intent of Congress that the resources of Yellowstone and other such geysers and hot springs not be exploited under this authority.

Well, in response to the drilling of a geothermal well by the owners of Royal Teton Ranch in Park County, Montana, which borders Yellowstone on the north, Congress amended the act in 1988 to obtain information on the impact of this development and potential geothermal development in the Corwin Springs KGRA.

On the thermal features of Yellowstone, the legislation required the Secretary to make recommendations on whether acquisition of geothermal rights associated with the well would be necessary to protect the significant geothermal features of Yellowstone if the Secretary determined that development would pose a direct threat to Yellowstone's thermal features.

Former Secretary Manuel Lujan transmitted the U.S.G.S. study to Congress in October 1991 along with the determination that acquisition of the geothermal rights was unnecessary at that time because there appeared to be no direct threat to the park. He noted that the study identified no discernible threat to the significant thermal features of Yellowstone from the operation of the existing well, surface diversion of the natural flows from the La Duke Hot Spring, or the use of downhole heat exchangers in the well in the La Duke area.

He further noted that additional wells drilled in the La Duke area would not cause adverse effects to the park's geothermal springs, provided that the combined production of all the wells was less than the natural rate of thermal water outflow and that each well produced from the same reservoir as the Royal Teton Ranch.

The Secretary's forwarding of the study to Congress was not without controversy. The National Park Service's impact analysis, which the Secretary chose not to transmit as a part of the document, concluded that, "There is sufficient probability of connection between geothermal systems in the Yellowstone National Park and those in the Corwin Springs KGRA to warrant extreme concern over the development of geothermal resources in the KGRA."

The NPS report cited the situation at the Island Park KGRA as a precedent and recommended exercising the same extreme caution in considering geothermal development for lands adjacent to sensitive park resources.

While Congress was addressing the impacts on park thermal features, the National Park Service was also considering another equally important aspect of the issue; that is, water rights for the parks. The Montana statewide water rights adjudication has been pending since 1973. National Park Service claims for reserved and appropriative water rights were filed in 1982. Negotiations between Montana and the Service occurred during the period of 1984 to 1986 but broke down when the parties could not agree on geothermal protection and the protection of certain existing State-based water rights.

At Montana's request, intensive negotiations resumed in early 1992 and recently produced a draft compact that we have heard today has recently passed the Montana State Legislature.

This compact offers an opportunity to obtain without litigation substantial protection of NPS reserved water rights and resources at three National Park System units in Montana, and an agreement to complete negotiations on two additional parks. The compact recognizes the Federal reserved water right in the geothermal resources, including groundwater, within Yellowstone National Park.

Of particular importance to today's discussion, the compact provides protection to the hydrothermal resources of Yellowstone National Park by precluding development of geothermal water on lands outside the park and providing restrictions and monitoring and inventorying of nongeothermal groundwater development.

Mr. Chairman, let me conclude by expressing my deep appreciation to those individuals in the State of Montana who have worked so professionally and expeditiously in negotiating this water rights compact for the National Park Service. To have completed this process in only one year is a significant achievement.

Secondly, as Secretary Babbitt indicated before the Full Committee on February 16 of this year, we wholeheartedly endorse Mr. Williams's efforts to protect the natural wonders of Yellowstone National Park and applaud his attention to this matter.

Finally, let me say that we appreciate your Subcommittees' interest in this matter and your willingness to provide early hearings on this important legislation. We would look forward to working with you and Mr. Williams in developing the final bill language.

I would like to say also that our position at this point is that we would request that language be developed to provide provisions to the bill to implement the Secretary's responsibilities, including provisions to allow State programs for the management of groundwater and geothermal resources on non-Federal lands adjacent to Yellowstone, so long as they are approved by the Secretary;

Two, to adopt the Montana National Park Service water rights compact and its park protection language as a groundwater management program, as a State groundwater management program;

Three, to recommend a time frame and mechanism, including authorities, as necessary, for implementing the results of the four-year study required in subsection 3[b] of the current bill; and

Four, to provide procedures for managing any potential claims alleging deprivation of property rights.

We request that the Committee defer action on H.R. 1137 until we can present this language and a report which we will transmit to the Committee shortly.

Thank you very much. I would be pleased to respond to your questions.

[Prepared statement of Dr. Fenn follows:]

STATEMENT OF DR. DENNIS FENN, DEPUTY ASSOCIATE DIRECTOR, NATURAL RESOURCES, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEES ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS, AND ENERGY AND MINERAL RESOURCES OF THE HOUSE COMMITTEE ON NATURAL RESOURCES, ON H.R. 1137, A BILL TO AMEND THE GEOTHERMAL STEAM ACT OF 1970 AND FOR OTHER PURPOSES.

April 22, 1993

Mr. Chairman, thank you for the opportunity to appear before these two Subcommittees to testify on H.R. 1137, a bill to amend the Geothermal Steam Act of 1970.

We strongly support the purposes of H.R. 1137 and will continue to work with Mr. Williams' staff as well as the Committee in an effort to develop specific language that fully protects the significant thermal features of Yellowstone National Park yet allows for reasonable and efficient implementation by both the Secretary and the states of Montana, Idaho, and Wyoming.

This language will include provisions to: (1) implement the Secretary's responsibilities, including provisions to allow state programs for the management of groundwater and geothermal resources on non-Federal lands adjacent to Yellowstone so long as they are approved by the Secretary; (2) adopt the Montana-National Park Service water rights compact and its park protection language as a state groundwater management program; (3) recommend a time frame and mechanism, including authorities as necessary, for implementing the results of the 4-year study required in subsection 3(b); and (4) provide procedures for managing any potential claims alleging deprivation of property rights. We request that the Committee defer action on H.R. 1137 until we can present this language in a report that we will transmit to the Committee shortly.

H.R. 1137, if enacted, would further amend the Geothermal Steam Act of 1970 by adding two new sections. Section 30 would direct the Secretary of the Interior to prohibit any development of new geothermal wells, expansion of existing wells, or construction or expansion of facilities related to geothermal production within the Corwin Springs Known Geothermal Resources Area (KGRA), including on lands not owned by the Federal government, because such activities would result in adverse effects on significant thermal features in Yellowstone National Park. Section 31 would prohibit the Secretary from issuing any lease under this Act for Federally-owned lands within a 15-mile radius of the boundary of Yellowstone National Park. This would not apply to the Island Park KGRA, which is located within this zone in the State of Idaho and is the subject of similar prohibitions enacted by Congress in 1984.

Section 3 of H.R. 1137 would place a moratorium on any development of new geothermal wells, expansion of any existing wells, or construction or expansion of facilities related to geothermal production on non-Federally owned lands and waters, including the non-Federal lands and waters in the Island Park KGRA, within a 15-mile radius of the boundary of Yellowstone until 180 days following the submission to Congress of a four-year study on the impact of potential geothermal development on the thermal features of Yellowstone National Park. The study would be performed by the National Park Service, in consultation with the Forest Service and the U.S. Geological Survey and would not include lands within the Corwin Springs KGRA or Federal lands within the 15-mile radius cited earlier.

Mr. Chairman, the Geothermal Steam Act of 1970 was enacted following several unsuccessful attempts in earlier Congresses to provide a clear-cut framework to govern the commercial development of geothermal steam and associated geothermal resources underlying the public lands. It was intended to provide authority to the Secretary of the Interior to lease Federal lands for the development of such resources in much the same way that authority existed to lease these same lands for the development of oil and gas deposits. Certain lands, including national parks and monuments, were specifically exempted from the leasing provisions of the 1970 Act. Committee reports specifically stated that it was the intent of Congress that the resources of Yellowstone National Park or any other such geysers or hot springs not be exploited under this authority.

In response to the drilling of a geothermal well by the owners of the Royal Teton Ranch in Park County, Montana, which borders Yellowstone on the north, Congress amended the Act in 1988 to obtain information on the impact of this development and potential geothermal development in the Corwin Springs KGRA on the thermal features of Yellowstone. That legislation required the Secretary to make recommendations on whether acquisition of the geothermal rights associated with the well would be necessary to protect the significant thermal resources of Yellowstone if the Secretary determined that development would pose a direct threat to Yellowstone’s thermal features.

Former Secretary Manuel Lujan transmitted the USGS study to Congress in October 1991, along with a determination that acquisition of the geothermal rights was unnecessary at that time, because there appeared to be no direct threat to the park. He noted that the study identified no discernible risk to the significant thermal features of Yellowstone from (1) the operation of an existing geothermal well drilled by the Royal Teton Ranch in the La Duke Hot Spring area of the Corwin Springs KGRA at rates up to 25 liters per second; (2) surface diversion of the present natural flow of La Duke Hot Spring; or (3) from the use of downhole heat exchangers in wells in the La Duke area. He further noted that production from additional geothermal wells drilled in the La Duke area would not cause adverse effects on the park's thermal springs, provided that the combined production from all wells was less that the natural rate of thermal water outflow (50 to 70 liters per second) and that each well produced from the same reservoir as the Royal Teton Ranch geothermal well.

The Secretary's forwarding of the study to Congress was not without controversy. The National Park Service's Impact Analysis, which the Secretary chose not to transmit as a part of the USGS document, concluded that "there is sufficient probability of connection between geothermal systems in Y(ellowstone) N(ational) P(ark) and those in the (Corwin Springs) KGRA to warrant extreme concern over development of geothermal resources in the KGRA." The NPS report cited the situation at the Island Park KGRA as a precedent and recommended exercising extreme caution in considering geothermal development for lands adjacent to sensitive park resources.

While Congress was addressing impacts on park thermal features, the National Park Service was also considering another equally important aspect of the issue -- water rights for the parks. The Montana State-wide Water Rights Adjudication has been pending since 1973. National Park Service claims for reserved and appropriative water rights were filed in 1982. Negotiations between Montana and the Service occurred during the period of 1984 through 1986 but broke down when the parties could not agree on geothermal protection and the protection of certain existing State-based water rights. At Montana's request, intensive negotiations resumed in early 1992 and recently produced a draft compact that is now embodied in a bill that is pending before the Montana legislature.

The compact offers an opportunity to obtain, without litigation, substantial protection of NPS reserved water rights and resources at three National Park System units in Montana and a commitment to complete a agreement on two additional parks. The compact will also recognize a Federal reserved water right in the geothermal resources, including ground water, within Yellowstone National Park. Of particular importance to today's discussion, the compact provides protection to the hydrothermal resources of Yellowstone National Park by precluding development of geothermal water on lands outside the park and providing restrictions on and monitoring and inventorying of non-geothermal groundwater development.

Montana's legislature, which meets every two years, is slated to adjourn tomorrow. If the measure passes and is approved by the governor, the compact will be submitted to the Departments of the Interior and Justice for Federal approval.

Mr. Chairman, let me conclude by expressing my deep appreciation to those individuals in the State of Montana who have worked so professionally and expeditiously in negotiating this water rights compact with the National Park Service. To have nearly completed that process in only one year is a significant achievement. Secondly, as Secretary Babbitt indicated before the full Committee on February 16th of this year, we wholeheartedly endorse Mr. Williams' efforts to protect the natural wonders of Yellowstone National Park and applaud his attention to this matter. Finally, let me say that we appreciate your Subcommittees' interest in this matter and your willingness to schedule early hearings on this important legislation. We look forward to working with you and Mr. Williams in developing final bill language. I would be pleased to respond to your questions at this time.

Mr. LEHMAN. Thank you very much.
Mr. Tweeten?

STATEMENT OF CHRIS TWEETEN

Mr. TWEETEN. Thank you, Mr. Chairman. Members of the Subcommittee, my name is Chris Tweeten. I am the Chief Deputy Attorney General for the State of Montana, and I also serve as the chairman of Montana's Reserved Water Rights Compact Commission. With me today are: Barbara Cousins, the legal counsel for the Compact Commission, who is seated directly behind me; and Susan Cottingham, the staff director for the Compact Commission. And with the Committee's indulgence, I may, in the event questions are asked, refer to some assistance from them in responding to your questions.

The Montana Reserved Water Rights Compact Commission was established by the Montana Legislature in 1979 and has recently completed a compact, as you have heard, with the National Park Service. I want to talk briefly about the context in which that agreement was reached.

As you have heard, Montana has a statewide water adjudication program, which has been in existence since 1979 and which is proceeding basin by basin to adjudicate all water rights claims in the State of Montana. That adjudication program includes specifically Federal reserved water rights as well as water rights existing under State law.

When our legislature enacted this program in 1979, it recognized the special nature of Federal reserved water rights and the complexities that are involved in quantifying those Federal reserved rights in a litigious framework, and the legislature created a special commission, composed of nine members, which was given the task of seeking to reach negotiated settlements of the Federal reserved water rights claims in Montana not only for Federal agencies like the National Park Service but also for Montana's seven Indian reservations.

The commission is made up of appointees by the Governor of the State of Montana, appointees by the State legislature, and one appointee by the Montana attorney general.

Over the past year and a half the commission has been meeting and negotiating intensively with the negotiating team made up of our Federal counterparts from the National Park Service and the United States Department of Justice, in an effort to quantify Montana's Federal reserved rights for the National Park Service that exist in Montana. And we have reached, as you have heard, an agreement with the National Park Service for a quantification of those rights for Glacier National Park, the Big Hole National Battlefield, and Yellowstone National Park.

I am pleased to report this morning that as of Tuesday the Montana Legislature has completed action on that compact, has ratified it in a form that is acceptable to the Federal negotiating team, and that bill is going to the Governor's office for signature, and we have been assured that the Governor will properly act on it. So, from the State's end, the action on the compact is virtually complete, as I sit before you today.

I am pleased to testify this morning on Congressman Williams's bill and to urge you, in your consideration of that bill, to take into consideration the hard work that has gone before between the National Park Service and the State of Montana for the reaching of this compact, which I think is truly a historic example of cooperative Federal-State relationships, and to consider amendments to the bill that will accept Montana's approach as an approved Federal program for State program for the protection of these Federal resources within the State of Montana.

Just briefly, the details of the compact are set forth in my written statement, and rather than repeat them in specific, I would just like to summarize them for you.

Montana has a statute dealing with the subject of controlled groundwater areas in which the State is allowed to designate areas where groundwater withdrawals are to be regulated above and beyond the regulations that apply statewide. And the commission and the Park Service believed, and believe now, that the creation of a controlled groundwater area surrounding the portion of Yellowstone National Park that borders the State of Montana and is found in the State of Montana can provide adequate protection for the geothermal resources in Yellowstone Park by protecting the Federal reserved water right that is necessary for those features to be in existence.

The controlled groundwater area has two parts. The boundaries of the groundwater area were devised by reference to a report of the working group of scientists who were designated by the Park Service and the State jointly to report and bring recommendations back to us with respect to the boundaries of a controlled groundwater area. That working group, in turn, relied heavily on studies that have been done by the United States Geological Survey and by the National Park Service, pursuant to congressional authorization.

They came back and designated for us what they believed to be the significant boundaries that ought to be recognized for a controlled groundwater area. The groundwater area is broken into two parts. one part in which one might reasonably expect to encounter the discharge of geothermal water; and a second subarea in which it was believed that cold water recharge, which was important to the geothermal system, was present.

The initial restrictions within the controlled groundwater area apply to all withdrawals of groundwater with a priority date on or after January 1, 1993. As of that date, all wells, once the compact goes into effect, will require a permit under State law, including those wells under 35-gallons-a-minute. And as Congressman Williams has pointed out, without these restrictions, these small wells would be allowed to develop without permitting by the State of Montana.

The Montana Department of Natural Resources and Conservation will maintain jurisdiction to modify any permit for cold water if the character changes or if the cumulative development within the cold groundwater area requires that additional restrictions be put into place.

The initial restrictions that exist within the controlled groundwater area are that withdrawals of groundwater with a temperature of greater than 85 degrees Fahrenheit are not permitted unless the Department of Natural Resources finds, on recommendation from a technical oversight committee—about which I will speak briefly in a minute—that the hot water that is being produced is not hydrologically connected to the hydrothermal system within the park.

Water between 60 degrees and 85 degrees is treated like cold water if it meets certain specified criteria that are set forth in the compact for identifying water in that temperature range that is not believed to be geothermally connected to the resource in the park.

And, as I said, no restrictions are initially placed on the development of cold water within the controlled groundwater area.

The compact provides for the creation of a five-member technical oversight committee, whose members will be appointed by the National Park Service, by the Department of Natural Resources and Conservation, by the Montana University System, by the United States Geological Survey, and then one additional member who is selected by the initial four members who are appointed.

That oversight committee will have responsibility for conducting continuing oversight over the controlled groundwater area for considering studies that are developed and evidence that is developed in the controlled groundwater area and for making recommendations on changes that need to be made in the boundaries of the groundwater area or changes in the restrictions that are set forth in the compact with respect to groundwater development within the area.

The compact provides for an initial review of the controlled groundwater area within one year after the receipt of a report inventorying groundwater development within the controlled groundwater area. Subsequent review will take place at a minimum every five years, and more often if the level of development within the groundwater area requires that that take place.

I want to talk briefly about funding. It was agreed by the National Park Service and the State of Montana that it would not be fair or appropriate for the taxpayers of the State of Montana to pay the tab for the protection of Yellowstone Park. Montana has, as you probably know, less than 900,000 residents, and the national park being a national resource, it was agreed between the State and the National Park Service that it would be appropriate for the Federal Government to provide the financial resources to support the administration of a controlled groundwater area. And the efforts are already beginning to provide the appropriation that will be necessary for the State to administer that controlled groundwater area.

We believe that initially an appropriation of $2.3 million will provide the seed money that is required in order to administer that controlled groundwater area for the foreseeable future. The compact provides that we can come back to Congress and ask for further appropriations in the event that circumstances change and further resources need to be devoted to the protection of the geothermal resources in Yellowstone Park.

We recognize that Yellowstone Park is an important national resource, and over the past year and a half the State of Montana has spent a considerable amount of money and devoted a considerable amount of time to the creation of this compact, which has as one of its centerpieces the protection of geothermal resources in Yellowstone National Park.

The State now would ask to be allowed to work with Congress to integrate this innovative and cooperative State-Federal program into the efforts that are before you in Congressman Williams's bill to protect the geothermal resources in Yellowstone Park. We urge Congress to pass a bill out that takes into consideration the work that we have done in Montana, that encourages other States to engage in a similar process to try to develop a State-Federal cooperative program for the control of groundwater resources outside the national park which may have an effect on Federal resources in the park, and we ask that the funding be provided to implement the compact in a way that the State and the National Park Service agree.

We would like to express our appreciation, finally, to our counterparts in the National Park Service and the Justice Department, who have worked long and hard to try to reach this historic agreement with the State of Montana, and we thank you for the opportunity to come before you and testify with respect to it. I would be happy to answer your questions.

[Prepared statement of Mr. Tweeten follows:]

TESTIMONY OF CHRIS TWEETEN REPRESENTING THE STATE OF MONTANA ON H.R. 1137, "THE OLD FAITHFUL PROTECTION ACT OF 1993" BEFORE THE HOUSE NATURAL RESOURCES SUBCOMMITTEES ON ENERGY AND MINERAL RESOURCES AND NATIONAL PARKS, FORESTS AND PUBLIC LANDS,

APRIL 22, 1993

Chairman Lehman, Chairman Vento and members of the subcommittees, my name is Chris Tweeten. I am the Chief Deputy Attorney General for the State of Montana and the Chairman of the Montana Reserved Water Rights Compact Commission. With me today are Barbara Cosens, legal counsel for the Compact Commission, and Susan Cottingham, staff director for the Compact Commission. The Compact Commission was established by the Montana Legislature in 1979 to negotiate the settlement of reserved water rights as part of the state-wide general stream adjudication. It is composed of nine members, four appointed by the Governor; two appointed by the President of the Senate; two appointed by the Speaker of the House; and one appointed by the Attorney General.

Over the past year and a half the Compact Commission, and negotiating teams representing the National Park Service and the United States Department of Justice, have been engaged in negotiations to settle the quantification of the federal reserved water right for National Parks in Montana, including Glacier National Park, Big Hole Battlefield National Monument, and the portions of Yellowstone National Park in Montana. The negotiation process included extensive public involvement in the areas affected by the agreement. The Compact agreed to by the negotiating teams is currently before the Montana legislature for ratification.

I am pleased to be here today to testify on the portion of the Compact that addresses the federal reserved water right to the water necessary to preserve the hydrothermal system within Yellowstone National Park. The State of Montana and the National Park Service were able to build on the groundwork laid by Congress to design a cooperative state-federal program for the protection of the hydrothermal resources of Yellowstone National Park from adverse groundwater development in Montana.

The State of Montana's goals in entering compact negotiations were to quantify federal reserved water rights as part of the state-wide general stream adjudication, protect valid state-based water rights, and to maintain state control over resources outside the boundary of Yellowstone National Park. Concerns had been raised over the impact of a federal ban or moratorium pertaining to geothermal development on local control of groundwater use.

The State of Montana recognizes that a federal reserved water right exists to the extent necessary to fulfill the purposes of the reservation of Yellowstone National Park. The Compact Commission and the National Park Service agree that Congress intended to reserve the water necessary to preserve the hydrothermal features within the reserved land of the Park. However, quantification of the water necessary to preserve the hydrothermal system within the Park appeared to the Compact Commission to be difficult, if not impossible.

Recognizing the importance of the hydrothermal features of Yellowstone to both the State of Montana and the United States, the State and the Park Service have agreed to establish a controlled groundwater area under state law adjacent to Yellowstone National Park in Montana. The mutual goals are to allow no impact to the hydrothermal system within the Park, allow reasonable development of groundwater adjacent to the Park, provide a means for systematic study of groundwater development, and allow flexibility based on increased understanding of the impact of groundwater use and of the hydrothermal system itself.

The following testimony is a summary of the portions of the National Park Service -- Montana Compact pertaining to the Yellowstone Controlled Groundwater Area.

The initial boundaries of the Controlled Groundwater Area, divided into Subareas 1 and 2, are illustrated on the enclosed map. The boundaries were selected on recommendation by a Technical Working Group contracted by the National Park Service. That group relied heavily on studies done by the U.S.G.S. and the NPS pursuant to Congressional authorization.

Subarea I represents the most likely area of discharge of hot water from Yellowstone National Park. Information used to delineate Subarea I included fault location, hot springs and evidence of the distribution of impact in developed geothermal fields. Subarea II represents the most likely area of cold water recharge. Boundaries follow either the drainage divide or the outcrop pattern of a regional aquifer known as the Madison Group. Chemical evidence suggests that this Group may be the source of some of the water in the hydrothermal system within the Park.

Montana follows the doctrine of prior appropriation. Under the State's permit system, the priority date of a water right is the date on which the permit is issued. The initial restrictions within the Controlled Groundwater Area apply to groundwater appropriations with a priority date on or after January 1, 1993. All wells after January 1, 1993 must obtain a permit to appropriate water. Without these controls, small wells would be exempt from permitting under state law. The United States may be an objector to any application for the appropriation of groundwater within the Controlled Groundwater Area on the basis that the appropriation is in violation of applicable restrictions. The Montana Department of Natural Resources and Conservation (DNRC) will maintain jurisdiction to modify any permit if the character of the water produced changes or the cumulative effect of development poses a threat to the Park.

In addition, the following initial conditions apply:

> Groundwater of greater than 85°F cannot be developed within the Area unless the Technical Oversight Committee (TOC) described below recommends that the development will produce water that is not hydrologically connected to the hydrothermal system within the Park. The recommendation by the TOC goes to the DNRC for a hearing and can only be rejected on a contrary showing by clear and convincing evidence. The water user, United States, State and other affected parties may present evidence. DNRC rulings are appealable on the record. An approved development must undertake monitoring recommended by the TOC.
>
> Water between 60 and 85°F is treated like cold water if it meets the following criteria chosen to detect any hydrothermal contribution:
>
> - the temperature is less than or equal to that expected for the depth of production given a normal thermal gradient;
> - the chloride content is less than 10 ppm; and
> - the production zone does not occur within the geologic formations known as the Madison Group.
>
> Water that does not meet each of these criteria is treated like hot water.
>
> Due to the low level of current development and the Wilderness status of a large portion of the recharge subareas, the State of Montana and the Park Service agreed that further restrictions on water of less than 60°F are not currently necessary to prevent adverse effect on the hydrothermal system within the Park.

To assess the level of development adjacent to the Park, all groundwater appropriations with a priority date before the effective date of the Compact will be inventoried over a three year period by the Montana Bureau of Mines and Geology. The inventory will include such information as well depth, water or pump level, water temperature, and for select wells, water chemistry. Following the inventory, the Bureau will sample wells on a continuing basis selected in consultation with the Technical Oversight Committee. The Bureau will maintain a database on the

Controlled Groundwater Area. The information in the database will be available to the public.

A five-member Technical Oversight Committee will be established to: review applications for development of hydrothermal water; review the boundaries and restrictions; review scientific evidence relating to the area; assess the cumulative impact of all development in the area; review changes in the groundwater and hydrothermal systems revealed by inventory and analyses done by the Bureau of Mines and Geology; advise the DNRC regarding administration; and consult with the Bureau of Mines and Geology on inventory and sampling programs.

The Committee members will include: one appointed by the National Park Service; one appointed by the U.S.G.S.; one appointed from the Montana University system by the Montana State Geologist; one appointed by DNRC; and one selected by the other four members. Each member will serve a five-year term, subject to renewal. Recommendations to issue a permit for development of hydrothermal water or to modify boundaries or restrictions, require a supermajority of 4 to 1.

Initial review by the TOC will take place within one year of receipt of the inventory report done by the Bureau of Mines and Geology. Subsequent review will take place every five years or following the issuance of 75 permits to appropriate water within the Controlled Groundwater Area, whichever comes first. Review may also be initiated on request by the State or the United States.

The TOC will make any recommendations on modification of the Area boundaries or restrictions to DNRC. Recommendations will be based on a determination by the TOC that modification is necessary to prevent adverse effect to the hydrothermal system within the Park. Prior to implementation of any recommendations, DNRC will hold a hearing in which the State, the United States, and any potentially affected party may present evidence to rebut the recommendations by the TOC. Any decision by DNRC is appealable on the record.

The Commission and the Park Service Negotiating team have agreed that the population of Montana (less than one million) should not bear the entire cost of implementing these innovative measures to protect this national treasure. The State seeks $2.3 million in federal funding to establish and administer the Area and to fund the inventory and ongoing sampling program. It is our estimate that these funds would be sufficient to implement the program in perpetuity unless unknown circumstances arise or development pressure adjacent to the Park undergoes a significant increase.

Nevertheless, we recognize that protection of the hydrothermal resources within Yellowstone National Park is of considerable importance to the State of Montana. Over the past year and a half the State of Montana has spent over $180,000 on Commission and DNRC staff time to study the establishment and implementation of the Controlled Groundwater Area. In addition, the State of Montana has agreed to (1) require drillers of new wells to report water temperature; and (2) to prohibit any permitting of wells that produce water in excess of 60°F until January 1, 1996. These interim measures were provided to protect the hydrothermal system prior to the receipt of funding.

The State of Montana now seeks to work with Congress to integrate this innovative and cooperative state-federal program with the efforts of Congress to maintain the integrity of this important national resource. On behalf of the State of Montana, I urge the committees to (1) amend H.R. 1137 to replace the proposed 15 mile moratorium in Montana with endorsement of the Controlled Groundwater Area established by the National Park Service -- Montana Compact; and (2) ask that the funding necessary to implement the Controlled Groundwater Area be included in the FY 94 Interior appropriations bill.

The fact that state and federal government can work together to solve resource problems in the west is reflected in the agreement between the State of Montana and the National Park Service and in your request that we testify on that agreement today. This truly indicates a new era in federal-state cooperation.

We would like to express our appreciation for the efforts of the National Park Service -- Department of Justice negotiating team and technical staff, the Technical Working Group and members of the public who have worked long and hard to design a solution that protects the hydrothermal system within the Park while allowing local water users an opportunity to be heard.

Thank your for the opportunity to testify. I would be happy to answer any questions.

Mr. LEHMAN. Thank you very much.

Mr. Simonich?

STATEMENT OF MARK S. SIMONICH

Mr. SIMONICH. Thank you, Mr. Chairman, Chairman Vento, Representative Williams, Representative Hinchey. My name is Mark Simonich. I am the director of the Montana Department of Natural Resources and Conservation, and I am here today on behalf of the department to give our strongest support for the compact that has been negotiated between the Park Service and the State of Montana. The Department of Natural Resources is the department in State Government that is responsible for administering the water use laws of the State of Montana. One aspect of that is the controlled groundwater area statutes that we have on the books. In that regard, the department has worked very closely with the compact commission during the negotiating process to insure that we will have a workable administrative system set up within the compact, both in terms of the groundwater but also in terms of the water rights that were negotiated, so that we do protect all existing water rights.

As Mr. Tweeten expressed, one of the major parts of this compact from the department's standpoint certainly is the creation of the Yellowstone Controlled Groundwater Area. We are confident that the controlled groundwater area that has been set up with this compact is well within the general groundwater statutes, controlled groundwater statutes for the State of Montana, and we are eager to implement the compact.

As Mr. Tweeten discussed, the compact, in the negotiations they reached agreement on the funding for this controlled groundwater area. It will be my department that will be responsible for implementing this, for establishing the controlled groundwater area, and for administering it. We recognize that there may be a lag time in receiving any Federal funding. The compact took that into consideration and built in some interim measures that will be taken, and the department is fully prepared to take those interim measures.

Last week, we went to the preconference committee in the State legislature and requested an appropriation for some seed money from the Resource Indemnity Trust Fund in Montana so that the DNRC can start implementing this as soon as the compact is ratified.

We fully support the compact. We are going to do everything in our power to implement it. We don't want to give the impression that we are going to sit and wait and see if we get Federal funding before anything takes place. We certainly will need some Federal funding. We look forward to that. But we are committed to implementing of the compact. One of the things that I think the DNRC feels most strongly about the compact is that we believe that this compact embodies a very strong commitment to State administration and jurisdiction of its natural resources.

The people of the State of Montana feel very strongly about Yellowstone Park. They love it, just like everyone else in the Nation does, and they believe that they want to be part of the process of protecting the park.

We believe that the compact that was reached in negotiations with the National Park Service and the appointed and elected officials from the State of Montana, all of the people that were involved in public meetings and public hearings around the State, shows that this compact is truly a made-in-Montana solution to a very potentially disastrous problem.

The DNRC supports it fully. We would encourage you, as you move forward in your deliberations on Congressman Williams's bill, to try and work to implement the compact and put it in place at least for the portions of Montana so that the solution that has been reached jointly between the State and Federal Governments can be allowed to work.

I also will answer any questions you may have. Thank you.

[Prepared statement of Mr. Simonich follows:]

STATEMENT OF MARK SIMONICH
DIRECTOR, MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
on H.R. 1137, "THE OLD FAITHFUL PROTECTION ACT OF 1993"
BEFORE THE HOUSE NATURAL RESOURCES SUBCOMMITTEES ON ENERGY AND MINERAL RESOURCES AND NATIONAL PARKS, FORESTS AND PUBLIC LANDS
APRIL 22, 1993

The Department of Natural Resources and Conservation strongly supports the Compact negotiated between the State of Montana and the National Park Service. The DNRC has responsibility for administering the water use law in Montana. Consequently the DNRC worked closely with the Reserved Water Rights Compact Commission to set up workable administrative systems for each unit of the National Park System that will provide effective water management with the minimum burden to water right users.

One of the major areas of DNRC involvement will be with the Yellowstone Controlled Groundwater Area. The controlled groundwater area created by this Compact fits well with the general controlled groundwater area statute under the Montana Water Use Act.

The Compact provides that the federal government will reimburse the State for costs associated with the establishment of the Controlled Groundwater Area. The State is not in a position to be able to absorb all of the costs associated with this activity and so is very grateful to the National Park Service for the support they have given in this regard. The Compact provides for interim measures pending receipt of federal funds.

I want to convey to this Committee in the strongest manner possible that it is the intent of the DNRC to do everything in its ability to implement the terms of this Compact. Because of the anticipated lag time in receiving federal funding, the DNRC has already submitted a request to the Montana Legislature for initial funding to establish the Controlled Ground Water Area. Although we do not yet know the outcome of that request we are fully committed to doing as much as possible with whatever funds we have available.

The Compact acknowledges that the United States "receives substantial benefit from the establishment and administration of the Yellowstone Controlled Groundwater Area, and that the national and international public benefit extends far beyond the boundaries of the state." Because of this the National Park Service has agreed that the State should be reimbursed for its costs. On behalf of the DNRC, I ask this Committee to concur in that sentiment and recommend that $2.3 million be appropriated to reimburse the State for establishing and administering the

Controlled Groundwater Area.

We also ask this Committee to recommend to the Department of Interior and to the Department of Justice rapid approval of the Compact so that we can begin the necessary work to implement it.

The DNRC believes this Compact embodies a strong commitment to state administration and jurisdiction. We believe this is as it should be. The Compact covers much more than a court could in just decreeing water rights. The Compact was negotiated by elected and appointed officials with lots of input from the general public. We believe it truly represents a Made in Montana solution. We urge this Committee to amend H.R. 1137 by removing any references to a federal moratorium in Montana and by replacing it with the provisions of the Compact. This will assure that the State will continue to have the lead role in administering its water resources, and acknowledges the effort and desire of the people of the State of Montana to protect the unique geothermal features associated with Yellowstone National Park.

Thank you.

Mr. LEHMAN. Thank you very much.

I thank each of our panelists for the testimony today, and we will move right into a few questions.

Dr. Fenn, first of all, you recommend in your testimony that we withhold any further movement on this bill until you have had an opportunity to offer us some changes in language to reflect the four points you have mentioned. How long do you think that will take? I understand the compact passed the legislature yesterday, and assuming the Governor signs it, how long do you think that will take?

Dr. FENN. Thank you, Mr. Chairman. I think that in some of our discussions we are looking at, hopefully, having some draft language written to try to get the appropriate reviews within the next week. And so, hopefully in as short a time as possible we will have those changes to you for your consideration. I hope it will be as quickly as we can get it done. I don't know that we can get it done in a week, but we can do our work in a week and then start the review process so that we can get it out of the department to you folks.

Mr. LEHMAN. Okay. And also, for the record, two years ago there was a lively hearing on this bill. At that time, it was suggested by the department that amendments remove the existing well of the Church Universal and Triumphant from the ban on subsurface geothermal development. Your position on that has changed. Correct?

Dr. FENN. Well, I think that we would like to see that be considered as a part of the general solution. So I think that, in essence, we have backed away from that contention, yes.

Mr. LEHMAN. Okay. Well put.

I would like at this time to ask the department to formally transmit the National Park Service report entitled "Corwin Springs Known Geothermal Resource Area Impact Analysis Report to Congress," so that we might include it in this record. That, to my knowledge, has not been done.

In that report, which we have seen, the Park Service states, and I quote, "The purpose of the study was to determine if there are cross-boundary connections between Yellowstone National Park geothermal resources and those in the Corwin Springs KGRA."

In its preferred alternative, it later states that, "NPS has concluded that there is sufficient probability of connection between geothermal systems in Yellowstone National Park and those in the KGRA to warrant extreme concern over development of geothermal resources in the KGRA." The preferred alternative was to disallow all subsurface geothermal development. But it does permit use of natural gravity-driven surface flows at their sources.

Could you transmit that to us?

Dr. FENN. Yes, we will.

[The report follows:]

Corwin Springs Known
Geothermal Resource Area
Impact Analysis: Report to Congress

National Park Service

August 1991

Table of Contents

Executive Summary 3

Introduction 4

Background of Development in Other Major Geothermal Areas 5

Importance of Study Findings 7

Summary Statement of Research Findings 8

Recommendations and Alternatives 9

References Cited 14

Executive Summary

As directed by Section 8(a) of the Geothermal Steam Act Amendments (Public Law 100-443), the U.S. Geological Survey (USGS), in consultation with the National Park Service (NPS), conducted scientific studies to determine impacts of present and potential geothermal development in the Corwin Springs Known Geothermal Resource Area (KGRA) on the thermal features in Yellowstone National Park (YNP). Section 8(d) of the Act further requires the Secretary to make recommendations in this report regarding the acquisition of the geothermal rights necessary to protect the thermal resources and features in YNP.

The Department's report on these studies is of two parts. Part I is a scientific report by the USGS that presents and analyzes technical data in terms of the likely effects of various levels of geothermal development in the KGRA on thermal features in YNP. Part II is an impact analysis and recommendation report by the NPS on whether development is considered compatible with protection of park resources and whether acquisition is necessary in the Corwin Springs KGRA. This document constitutes the NPS report.

Based on the USGS studies, NPS studies, and background information on the history of geothermal developments near and in other major geothermal areas of the world, the NPS has concluded that there is sufficient probability of connection between geothermal systems in YNP and those in the KGRA to warrant extreme concern over development of geothermal resources in the KGRA. **In order to protect the integrity of YNP geothermal resources, the NPS recommends that no subsurface development of geothermal resources be permitted in the Corwin Springs KGRA.** The NPS is concerned that no precedent for geothermal development be established with any well in the event that other parties owning geothermal and water rights in the Corwin Springs KGRA may wish to drill geothermal wells in the future. A precedent for such development could place the burden of proof on the Department for "no adverse impact" from various development scenarios. Furthermore, the NPS considers that a precedent to exercise extreme caution in considering geothermal development for lands adjacent to sensitive park resources exists in the previous case of the Island Park KGRA. **Because the United States currently does not have authorities to prevent subsurface development on privately owned lands in the Corwin Springs KGRA, NPS recommends that nonfederal geothermal and water rights be acquired in the KGRA.**

Introduction

Since 1986, public attention has focused on potential geothermal development in the Corwin Springs KGRA. This attention has focused primarily on a geothermal well drilled on the property of the Royal Teton Ranch near La Duke Hot Spring, 1.6 mi. (2.6 km) north of the YNP boundary. In April of 1986, the landowner of the Royal Teton Ranch (Church Universal and Triumphant) drilled a 459 ft. (140 m) well directly across the Yellowstone River from La Duke Hot Spring. The well produced water chemically similar to that in La Duke Hot Spring, and proved capable of diverting all water from this natural geothermal feature.

In accordance with Section 115 of the Department of the Interior and Related Agencies Appropriation Act for 1987 (P.L. 99-591), NPS published for review and comment a proposed notice in the Federal Register on February 13, 1987 (52 FR 4700) that identified whether significant thermal features were located in twenty-two units of the National Park System, of which YNP was included. After receiving and considering all public comments, the Department finalized the report required by P.L. 99-591 to list the significant thermal features located in park units and transmitted the report to Congress on June 30, 1987. On August 3, 1987, the Department published in the Federal Register the final list of significant thermal features located in units of the National Park System (52 FR 28790). Below is an excerpt from that notice that lists all of YNP as significant:

> "Feature: Yellowstone National Park (hydrothermal feature) Old Faithful and approximately 10,000 geysers and hot springs make Yellowstone National Park the world's greatest thermal area. Because each of the components listed are part of and in total comprise the Yellowstone hydrothermal system, the entire park unit is listed as a significant thermal feature."

For those units in which significant thermal features were listed, future federal geothermal leasing would be dependent on determinations of whether proposals to explore for, develop, produce, or use geothermal resources surrounding the listed features are "likely to result in significant adverse effects, adverse effects, or no effects" to the park thermal features listed as significant. Such determinations, subject to appropriate public notice, would establish whether federal leases could be issued for lands directly adjacent to listed park thermal features. State or private lands were not subject to the same considerations as federal lands under consideration for federal leasing.

On September 22, 1988, the Geothermal Steam Act Amendments of 1988 were signed into law (P.L. 100-443). This revised the Geothermal Steam Act of 1970 to incorporate the concept of "significant thermal features" as listed in the August 3, 1987 Federal Register notice and added three more units to this list not previously included in the Department of the Interior notice.

Under Section 8(a) of the Geothermal Steam Act Amendments, the USGS, in consultation with the NPS, was required to initiate a "study of the impact of present and potential geothermal development in the vicinity of Yellowstone National Park on the thermal features within Yellowstone National Park." Congress further placed a moratorium on any production from existing wells, and on the development of new wells, until the study was completed, and for 180 days after receipt of the study by Congress. Since the enactment of the Geothermal Steam Act Amendments, development of the well owned by the Church Universal and Triumphant on the Royal Teton Ranch was suspended. The pump was removed from the well, and no new drilling is known to have occurred in the KGRA.

The Department's report on the Corwin Springs studies is in two parts. Part I is a scientific report by the USGS that presents and analyzes technical data in terms of the likely effects of various levels of potential geothermal development in the KGRA on thermal features in YNP. Part II is an impact analysis and recommendation report by the NPS on whether development is considered compatible with protection of park resources and whether acquisition is necessary in the Corwin Springs KGRA. The present document is the NPS report.

The study was not to be focused specifically on the existing well near La Duke Hot Spring. Instead, it was to determine if there are cross-boundary connections between YNP geothermal resources and those in the Corwin Springs KGRA. The major YNP geothermal resources near the KGRA are the Mammoth Hot Springs-Hot River complex. Numerous smaller expressions of the YNP geothermal resource are found in the area, including the streambed temperature anomalies and sulfate additions to the Yellowstone River near Bear Creek. Surface geothermal activity in the KGRA includes the Bear Creek Springs, directly across the Yellowstone River from the YNP boundary about 1.8 mi. (3 km) upstream from Gardiner, Montana and a complex of springs upstream and downstream of La Duke Hot Spring itself, along both banks of the river.

Any assessment of risk must address the greater potential problems associated with the cumulative impacts of all geothermal development in the Corwin Springs KGRA rather than focus on those associated with only one well or development site. As soon as the scientific reports in the area are released, all landholders in the KGRA will have rightful access to maps that could prove useful in locating promising geothermal development sites in the KGRA which could magnify the risk to the resources and values of YNP. Therefore, risk assessments must address the entire geothermal realm. This report and its recommendations focus on this concern.

Background of Development in Other Major Geothermal Areas

A review of the available literature on other significant geothermal resource areas, including those in New Zealand, China, Chile, Iceland, Russia, and the United States reveals disturbing similarities in the effects of development. In every case involving geyser areas, development seriously affected or destroyed the surface features of these areas. Only the Kronotski Biological Reserve, Kamchatka, USSR, and Yellowstone National Park, Wyoming, remain intact among the world's major geyser areas. In New Zealand, of more than 130 geysers that were active in 1950, only 14 still erupt, and massive disturbances due to energy development have also occurred in hot springs and other surface features. In Beowawe, Nevada, of 30 geysers active in 1958, none survived subsequent geothermal energy development exploration.

The process by which many of the world's surface geothermal sites were so dramatically altered offers lessons with direct application to the Corwin Springs KGRA. First, surface features may respond to relatively small changes in subsurface reservoir conditions over distances as great as 6 mi. (10 km), and may respond to changes of many types, including those of temperature, hydrostatic pressure, flow rates or directions, permeability, and geochemistry.

Second, changes in the reservoir occurring at some distance from the surface site may not manifest themselves at the site for an extended time period, which could be from 3 to 5 years or longer. Immediate actions may appear to do no harm but may in fact initiate long-term effects.

Third, monitoring of complex subsurface geothermal systems has shown that such systems, being relatively fragile geologically, are subject to substantial natural fluctuations in the various elements of their character. This natural variability greatly complicates any attempts to monitor the effects of development, because it is often impossible to distinguish between system changes brought about by human manipulation and natural "background noise" brought about by the system's unique geothermal characteristics. Repeatedly, monitoring has been confounded by these problems until irreversible damage to the system occurred.

Fourth, with the information available to us we are unable to analyze geothermal systems definitively. Even the best technology and analysis may result in inconclusive findings subject to several legitimate interpretations, none of which has any guarantee of reliability. Prediction of the effects of development on a geothermal resource area is an imprecise exercise.

Fifth, experience with attempts to reduce or mitigate the effects of development is so far very limited. Using reinjection of extracted fluids to provide pressure support in production reservoirs requires considerable subsurface information which must be obtained before reinjection wells can be properly sited. In the case of Corwin Springs KGRA, such information does not yet exist. Also, NPS cautions that such information may not be easy to obtain considering the economic and environmental costs associated with drilling the wells necessary to collect the data, which, in turn, will be subject to interpretations and possible extrapolations.

Last, human-caused changes in geothermal areas may be permanent. Any analysis of risk must weigh the possibility that the resource gets only one chance to survive any possible human error. The risk is, in that sense, an absolute one.

Because of the international renown and significance of the area involved, it is clear that the sensitive thermal resources of YNP warrant the most rigorous of protective measures available.

Importance of Study Findings

Because YNP geothermal resources adjacent to the Corwin Springs KGRA have been of interest to scientific investigators for nearly a century, the mandated research built upon earlier work, some of which is cited in the appended report.

The geological history of the KGRA is interwoven with that of Mammoth Hot Springs in YNP. Travertine formations similar to those now being formed at Mammoth occur between Mammoth and Hot River, at Bear Creek Hot Springs, and above the town of Gardiner. Travertine deposits of limited extent also occur at and near La Duke Hot Spring. It appears that geologic structural connections between Mammoth and the KGRA experienced geothermal fluid movement as recently as 10,000 years ago (Pierce et al 1991).

A number of geological structures, especially faults, exist that could act as conduits for geothermal fluid movement. Pierce et al. (1991) and Hamilton and Chambers (1991) offer various lines of evidence for such fluid movement. Geological investigations revealed no evidence of any barrier to fluid movement between Mammoth Hot Springs and the Corwin Springs KGRA, indicating that in the interest of protecting YNP geothermal resources, managers must act on the assumption that there is no barrier.

Soil mercury anomalies and streambed thermal anomalies were mapped (Hamilton and Chambers 1991) to trace possible geothermal aquifers associated with faults in the Mammoth Hot Springs-La Duke Hot Spring area. Taken in their entirety, the data from soil-mercury, geological, and geophysical investigations indicate or are consistent with geothermal fluid movement between YNP and the KGRA. The investigators emphasize that these findings constitute an evolving physical model at this time, but as such they do suggest both possible cross-boundary connections and the uneasy nature of assessing such connections with limited data and current scientific techniques.

Some geochemical characteristics determined by the USGS indicate similarities between waters in the KGRA and those at Mammoth Hot Springs (Kharaka et al. 1991). Other geochemical characteristics are different between the two sites, but the differences can be explained by geochemical differences in their respective host rocks. Even if chemical differences between, for example, La Duke Hot Spring and Hot River were judged to be a significant proof of source differences between the two sites, the only separation between the two could be hydraulic (difference in hydrostatic head) because no geologic barriers (impermeable rock or stratigraphic discontinuity) have been discovered there. Hydraulic barriers may be sensitive to change if development altered the hydraulic head in reservoirs in the KGRA.

Summary Statement of Research Findings

Two conclusions can be drawn from the studies. The first is that there is no evidence of a geologic barrier between the geothermal resources of YNP and those of the KGRA. The second is that there is evidence of geothermal fluid movement between YNP and the KGRA.

The USGS and NPS studies were conducted to determine potential impacts of KGRA geothermal development on YNP geothermal resources. As long as there exists a possibility of a connection between the geothermal resources of the KGRA and those of YNP, subsurface development of geothermal resources in the KGRA presents potential risks to the resources of YNP.

Some studies, such as the USGS work, focused primarily on major geothermal sites, such as Mammoth Hot Springs, Bear Creek Springs, and La Duke Hot Spring. It must be repeatedly emphasized, however, that all geothermal features of YNP, including aquifers, seeps, geothermally heated soils, and underwater springs, are judged significant, and any impact analysis must address their situations as well. Whatever interpretations are ultimately placed on data related to Mammoth Hot Springs, Hot River, Bear Creek Springs, or La Duke Hot Spring, there is ample reason to assume cross-boundary connections between geothermal aquifers in parts of the KGRA and in YNP.

The USGS and NPS studies addressed many aspects of the possible cross-boundary geothermal connections between YNP and the KGRA, but it must be pointed out that there are many other important questions about the effects of development on other, non-geothermal resources, both in the KGRA and, at least potentially, in YNP. Though these influences are beyond the immediate scope of this report, concerns expressed by several involved parties lead us to introduce them here. Geothermal water may influence the environment it enters in many ways, in a "ripple effect" that spreads far beyond the vent of the spring.

For example, the heat and chemical character of the water, when entering a river, affect the entire life chain, from the simplest protozoa to the most sophisticated predators. The numerous springs and upwellings that occur near or in the Yellowstone River between Bear Creek Springs and Corwin Springs may have effects on the ecology of the river. For example, thermal input into the Yellowstone River could impact the cutthroat trout, a species of special concern in Montana, by improving the hospitality of the river in that stretch by moderating water temperature variations, or enhancing productivity of macroinvertebrates that support fish populations (B. Shepard, Mt. Dept. Fish, Wildlife &

Parks, pers. comm. 1991). Winter stress is suspected of being a major factor limiting fish populations in the Yellowstone River. The fate of the outflow of Bear Creek Springs would, in this regard, be of special interest to YNP managers, because west of the springs the Yellowstone River bends back into the park, and any development of the springs could affect park fish populations.

Fish are an example of how the ecological setting might be affected by geothermal development. From them the web spreads and becomes more complex. The springs between Bear Creek Springs and La Duke Hot Springs, combined with the geothermally influenced waters of the Gardner River, keep several miles of the Yellowstone River relatively open during those times of cold weather that would normally freeze the river over completely downstream for many miles. This creates habitat for many animals, and has "feedback" effects into YNP. For example, waterfowl that use the Yellowstone River in the KGRA move in and out of the park regularly, up and down the main river or up into tributaries such as the Gardner River. Fish or waterfowl are preyed upon by other birds, including osprey, bald eagles, and peregrine falcons, all of which are of special concern or currently given special legal protection by federal or state agencies.

Consideration of the potential ecological impacts of geothermal developments in the KGRA draws in other elements of the setting, such as focusing on the esthetic or recreational value of relatively undisturbed geothermal sites, which are enjoyed by some undetermined number of people who live in or visit the KGRA. The confluence of La Duke Hot Spring and the Yellowstone River is, for example, used by some recreational bathers. It also must be noted that nongeothermal subsurface development affecting aquifer pressures could conceivably affect YNP geothermal resources even though they are undertaken with no intention of developing geothermal resources. These issues are beyond the scope of this report, but must be recognized as factors warranting consideration during deliberations on the scope and magnitude of geothermal development in the KGRA.

Recommendations and Alternatives

NPS discusses six options in the interest of outlining the widest range of development scenarios that could be proposed in the KGRA to be paired with representative responses from the widest management spectrum. We recommend only one of the six options as it offers the greatest protection to the geothermal resources of YNP without depriving potential developers of all access to the production of surface features in the KGRA. The preferred alternative is identified below as alternative #2, that is to disallow all subsurface geothermal development, but permit use of natural gravity-driven surface flows at their sources.

Each of the options discussed below were designed with the intent of each scenario not resulting in a measurable effect on the geothermal resources of YNP and that each option listed apply to all lands in the KGRA, regardless of ownership.

The following alternatives are proposed in light of protecting the geothermal resources of Yellowstone National Park and could potentially have ecological consequences on a site-specific basis for the Yellowstone River and its associated plant and animal communities. Although ecological effects have not been fully documented, we predict that the degree of such consequences will vary according to the proximity of the developable geothermal resource to the relevant resources affecting the YNP and the relative magnitude or volume and heat of the flow potentially removed from the system. Thus, it is important that decisions affecting the use of the geothermal features in the KGRA be considered on a site-specific basis and that they consider the consequences of their use to the resources and values of the YNP.

For those options discussing subsurface development, we do not have enough information at this time to determine with absolute certainty the threshold number of "allowable" wells beyond which further development would result in irreparable damage to YNP or below which would not constitute risk to the resources and values of YNP. Thus, the entire geothermal realm, not just one specific site, is the center for our concern for development. To the greatest extent possible, all potential wells should be identified and evaluated for their cumulative impact on the resources of YNP. We strongly recommend that cumulative impacts of all potential development sites be assessed prior to permitting any development in the KGRA. Thus, we do not suggest that the wells be permitted in a piecemeal or progressive manner.

Also, NPS intends for the standard of "no adverse impact" on YNP geothermal resources to be verified through a monitoring program, the costs of which will be borne by the developer(s). Even though we recognize that monitoring can be an inaccurate tool to predict change with certainty, it remains our only tool at the present time. Also, in seeking compliance with the standard of "no adverse impact," we recognize that it is virtually impossible to prove a negative and the burden for such proof could, undesirably, shift back to the Department of the Interior from the developer when considering the impacts of future development sites on the resources and values of YNP. It is for this reason, that the cumulative impacts of development sites in the KGRA needs to be understood using the best field data available. For all options, research and monitoring are of critical importance, not only to protect the resources and values of YNP and to ensure compliance with use stipulations, but also to protect the rights of those proposing to develop geothermal resources.

The alternative options are discussed below:

1. Disallow all surface or subsurface geothermal development in the Corwin Springs KGRA.

This alternative gives the maximum protection to the YNP geothermal system and to surface ecosystem resources in the KGRA. However, this option presents the most potential for conflict with existing state leasing and permitting processes in the KGRA.

2. *Disallow all subsurface geothermal development, but permit use of natural gravity-driven surface flows at their sources.* *[PREFERRED ALTERNATIVE]*

This alternative, like Number 1, assures that no subsurface geothermal development could risk the impairment of YNP geothermal resources, but it allows for use of surface hydrothermal outflow. The aquifer system underlying the YNP-KGRA landscape is complex. Many sources for water withdrawal exist and little is known about the potential effects of any of the subsurface withdrawals on other resources. We suspect that some level of drawdown, or reservoir pressure change, must accompany any subsurface withdrawal. Therefore, disallowing use of subsurface resources protects those resources without requiring monitoring and without depriving potential developers of all access to the production of the surface features.

Based on the USGS studies, NPS studies, and background information on the history of geothermal developments near and in other major geothermal areas of the world, the NPS has concluded that there is sufficient probability of connection between geothermal systems in YNP and those in the KGRA to warrant extreme concern over development of geothermal resources in the KGRA. In order to protect the integrity of YNP geothermal resources, the NPS recommends that no subsurface development of geothermal resources be permitted in the Corwin Springs KGRA. The NPS is concerned that no precedent for geothermal development be established with any well in the event that other parties owning geothermal and water rights in the Corwin Springs KGRA may wish to drill geothermal wells in the future. A precedent for such development could place the burden of proof on the Department for "no adverse impact" from various development scenarios. Furthermore, the NPS considers that a precedent exists to exercise extreme caution in considering geothermal development for lands adjacent to sensitive park resources in the case of the Island Park KGRA.

3. *Allow no increase in subsurface geothermal development in the KGRA over and above existing developed sites, and permit use of natural surface outflows.*

This option would allow the use of surface flows or expressions and would allow developers to move the point of diversion from the source of the surface flow to a producing well. However, it limits the use of subsurface flows so as not to exceed natural surface outflows. There are currently a few such wells in existence. We are not aware that any of these wells currently are producing geothermal waters, except for a low flow research well operated by the USGS. Under this alternative, modest production would be allowed, not to exceed the amount of surface flow of the associated spring discharge. This restriction would require the developer to prove that the well taps the immediate subsurface flow source of the spring itself. Thus, the costs for monitoring resultant changes in spring flow would be borne by the developer. Also, the NPS should have access to the drill site and to the data collected, as necessary to verify the connection with the subsurface aquifer.

Research, which might be judged necessary for future monitoring, would whenever possible use existing production sites, and would be likewise restricted to extremely limited sampling if it were necessary to drill new research wells for that purpose. Also, it would be necessary for NPS to have the authority to cause the cessation of operations if the monitoring system points to future or possible changes in the YNP resources. Legislative authorities to conduct site and data surveys and to stop disrupting operations, before they manifest disruptions to the hydrothermal features at YNP, would have to be provided to the United States for those wells sited on State or privately owned lands.

4. *Permit pumping of geothermal water from KGRA aquifers as long as it does not exceed the measurable natural flow from the surface springs associated with that part of the aquifer being developed.*

This option would allow the use of surface flows, allow for diverting these flows in a manner that would allow the use of existing wells, contemplate the use of new wells as long as they are tied to a legal right to use surface flows, and require that use does not exceed the natural surface flows. The intent of this approach is to ensure that the total amount of water taken from the aquifer does not exceed that currently reaching the surface and becoming outflow. Thus, in order to develop a site, the developer must withdraw water from an aquifer demonstrated to be producing visible outflow, and the withdrawal must maintain measurable outflow. For example, if the outflow were completely dried up, there would be no way of determining by what amount the withdrawal exceeded the outflow.

This option is less desirable because it significantly increases the risk of damaging hydrothermal resources in YNP. It relies heavily on the use of monitoring as a protective measure, a measure that, as discussed earlier, cannot always be considered a reliable test for discovering change to systems. Also, changes, once detected, may be of a magnitude resulting in adverse effects to the hydrothermal systems of YNP. Although the cost of the monitoring program and the subsequent burden of proof that the withdrawal will not harm the YNP geothermal system would be borne by the developer, data interpretations would be under the scrutiny of the NPS. Also, as with the Alternative #3, this option would require special legislative authorities to effect shut down of operations, if necessary to protect park resources.

5. *Permit development of KGRA geothermal wells whose production does not exceed measurable natural outflows, instituting both monitoring and reinjection systems.*

This option is the same as #4 above, except that this alternative has one added requirement of reinjecting geothermal fluids. Discussions of reinjection and its possible effects are provided by the USGS in Part I of this report. Reinjection must not be viewed as a panacea by which geothermal system abuses can be erased because the necessary subsurface information commonly does not exist to ensure reliable results.

Installation and monitoring of observation wells would be required to provide assurances that pressure changes caused by production or injection did not extend to geothermal aquifers beneath the park.

6. *Permit unrestricted new and existing development of the KGRA geothermal resources.*

This alternative is offered in the interest of presenting the full range of options. It provides no protection for the YNP geothermal resource and makes it impossible for the NPS to carry out its mandate to protect these resources. We anticipate that unrestricted new and existing development in the KGRA will result in significant adverse impacts to the hydrothermal resources and values of the YNP.

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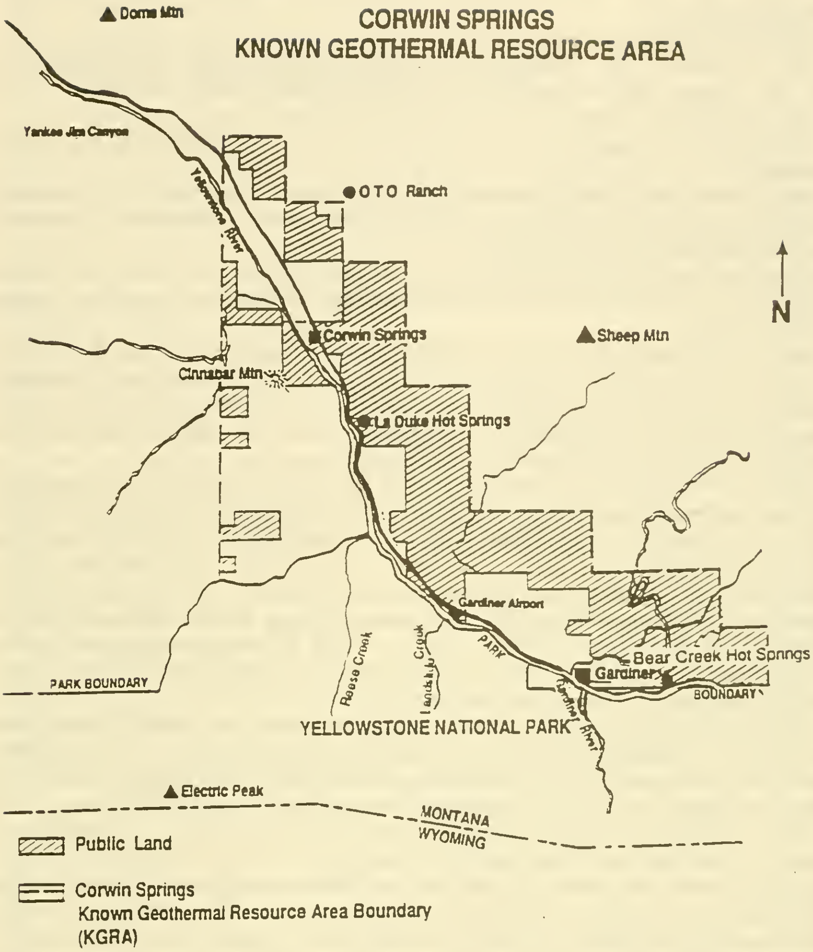
CORWIN SPRINGS KNOWN GEOTHERMAL RESOURCE AREA



Mr. LEHMAN. And is that bill before us consistent with that recommendation?

Dr. FENN. It is.

Mr. LEHMAN. Mr. Tweeten, the bill I understand was passed by the legislature is now on the Governor's desk. Is that correct?

Mr. TWEETEN. That's correct, Mr. Chairman.

Mr. LEHMAN. And you do anticipate that the Governor will sign the bill?

Mr. TWEETEN. That's correct. His representative testified in favor of the bill before both houses of the Montana Legislature. I expect no problem with his approval.

Mr. LEHMAN. Okay. And could you explain for us how that compact affects other Federal reserved water rights in the other parks in Montana?

Mr. TWEETEN. Briefly, Mr. Chairman, there are five National Park Service units in Montana. Glacier Park, Yellowstone National Park, the Big Hole National Battlefield, the Little Big Horn National Battlefield southeast of Billings, and the Big Horn Canyon recreation area on Yellowtail Reservoir.

We have reached agreements with the Park Service with respect to the reserved water rights claims on three of those five units: the Glacier Park, the Big Hole National Battlefield, and Yellowstone National Park. The Little Big Horn Battlefield and the Big Horn Canyon recreation area lie either in or adjacent to the Crow Reservation in Montana, and we are undertaking water rights negotiations with the Crow Tribe, and we will be negotiating with the Park Service concurrently with respect to those units as our negotiations with the Crow proceed.

We felt, for that reason and simply because we didn't have time before our legislature meets to complete a compact on those two units, that we would go ahead and complete the compact with respect to the other three units and leave those two until later.

The compacts with respect to Glacier and Big Hole and with respect to the surface flows in Yellowstone were very similar. We recognized instream flow rights for the National Park Service units and all three units within the boundaries of the park units. We have recognized that, because of the priority base that exists with respect to those units, that there are restrictions that must apply with respect to development of water under State law outside of the park.

There are a number of rivers that are a tributary to the Yellowstone system that rise in Montana outside Yellowstone Park, flow into Yellowstone Park, and then exit the park in the Yellowstone River. And we recognized in the course of these negotiations that, because of the National Park earlier priority date, that restrictions on surface flows in those drainages were required, and we have agreed with the Park Service as to what those restrictions will be.

With respect to Glacier and Big Hole, we have made similar agreements with respect to development of water upstream from those two units as well.

Mr. LEHMAN. All right. Mr. Vento may want to pursue this further. But let me move on to another point first.

Under the compact, how do you treat existing wells?

Mr. TWEETEN. Mr. Chairman, existing wells are grandfathered.

Mr. LEHMAN. Are they all grandfathered?

Mr. TWEETEN. Yes.

Mr. LEHMAN. And if this compact had been in effect prior to their coming on line, would they have been allowed?

Mr. TWEETEN. You're referring to the Church well?

Mr. LEHMAN. Right.

Mr. TWEETEN. If this compact had been in effect prior to the development of that well, I am not entirely conversant with the temperature of the water that's being produced with the well, but if the water was in excess of 85 degrees, then the restrictions of the compact would have applied and the permit would have been issued by the State of Montana only upon a finding that the water that is being produced is not hydrologically connected to the geothermal resource in the park.

Mr. LEHMAN. Explain how you differentiate hot and cold water, then, for purposes of the compact.

Mr. TWEETEN. Well, there are three different levels that are in the compact. Water below 60 degrees is considered to be cold water, and as to that water presently, there is no restriction in the compact with respect to its development. There is a registration program that is put in place in the compact so that all of those wells will be registered with the State of Montana as part of our data collection process.

Mr. LEHMAN. So it is just taken on face value that there is no connection between a well that's under 60 degrees and the resource we are trying to protect?

Mr. TWEETEN. I think that's correct. I think the present level of scientific data that we have indicates that development of those cold water wells, at least small cold water wells, under 35-gallons-a-minute, can proceed without restriction at the present time. Any well over 35-gallons-a-minute requires a permit from the State of Montana, just like it does anywhere else, and the compact doesn't change that.

Mr. LEHMAN. So the temperature of the water is taken as proof that there is no impact on Yellowstone?

Mr. TWEETEN. For water under 60 degrees, that's correct. For water between 60 degrees Fahrenheit and 85 degrees Fahrenheit, the compact provides a set of criteria that are used to analyze the water to determine whether the warm component of that water is connected to the geothermal resource in Yellowstone Park, and that includes chemical analysis, that includes an analysis of the depth at which the water is produced.

Mr. LEHMAN. In other words, water colder than 60 degrees may be mingled with water that is hotter, causing the temperature to be 60 but the hotter component may in fact be connected to the park resource?

Mr. TWEETEN. Well, we are told by the scientists that as wells get deeper, the temperature of the water tends to rise, and sometimes, depending on the depth of the well, the higher temperature may be attributable simply to the depth at which the water is produced. And there may be other reasons as well unconnected with the resource in the park.

Mr. LEHMAN. Does the compact address the cumulative impact of a number of wells?

Mr. TWEETEN. It does in the sense that it requires the acquisition of data with respect to the number of wells that are being drilled, how much water is being produced, what the nature of that water is, and as that database grows and as observations occur with respect to the resource in the park, if it appears that that cumulative development is going to begin to have impacts, the technical oversight committee will then have the opportunity to make recommendations with respect to changing the boundaries of the controlled groundwater area or changing the restrictions that need to be placed on the development of that water.

Mr. LEHMAN. And are there any flow limits or levels under which there is no triggering of the restrictions in the compact?

Mr. TWEETEN. No. The restrictions apply to any withdrawal of groundwater regardless of how small, with respect to the registration program. When you get to the 35-gallon-a-minute level, then a permit is required. But all withdrawals of groundwater are subject to the compact.

Mr. LEHMAN. Mr. Vento?

Mr. VENTO. Dr. Fenn, we commented about Idaho. I think the Island Park area has been set in law for some time in order to protect Island Park, and those protections currently are at this time viewed as being sufficient.

Dr. FENN. Yes.

Mr. VENTO. This deals with the Montana issue which has been talked about in some detail and depth today. What about the situation in Wyoming?

Dr. FENN. Currently there are no means to provide these same levels of protection. And one of the things this bill we hope would do is to extend some of those provisions to protection of the Wyoming resources. And I think also even in the Island Park area, the non-Federal lands are not provided that same degree of protection that the Federal lands are under the compact.

Mr. VENTO. Do they fit within the zone that you would be concerned about?

Dr. FENN. The non-Federal lands?

Mr. VENTO. Yes.

Dr. FENN. Yes, they do. And so that is why we feel that the combination of this proposed bill, with some amendments that we would propose, and the Montana compact is a very good combination.

Mr. VENTO. What is the status of discussions with regard to these policy matters? I am certain that Congressman Williams is anxious to move along and to put this issue into—not that he is not interested in the other areas—but what is the status of discussions and policy with regard to these matters?

Dr. FENN. I am not sure I understand your question.

Mr. VENTO. Well, have you had any initial negotiations or discussions on common language that would be acceptable?

Dr. FENN. I think what we have done at this point is put our energies into finishing the Montana compact and hoping that with that one in place, then we might be able to use that as a role model with the other two States. So we really haven't made very much progress in negotiations with the other States.

Mr. VENTO. Well, that tells me you have high hopes.

Dr. FENN. Yes.

Mr. VENTO. That is what I hear.

Dr. FENN. Yes. I think that's true.

Mr. VENTO. Well, Dr. Fenn, in your statement you request that action on the bill be deferred until language can be presented to provide procedures for managing any potential claims alleging deprivation of property rights. But aren't there already laws on the books, including the Tucker Act, that provide exactly such procedures? Why wouldn't that Tucker Act, whatever it is, be workable? you must know of it.

Dr. FENN. Well, Mr. Chairman, I guess I would answer that question by saying that for the very reasons you just said, "whatever it means," it may turn out——

Mr. VENTO. No, no, I think it is a law that allows individuals to go to the court of claims so that we basically cannot deprive property without due compensation.

Dr. FENN. Right. We feel that having some specific references in this particular bill to provisions that the Secretary might use and invoke to implement these provisions would help maybe prevent some of those things from having to go strictly to the courts, and it might connect this legislation with the other legislations more directly in a way that will give clear guidance to the courts.

Mr. VENTO. Yes. I think the problem gets to be, as the members of the Subcommittee are aware, as we begin to try to craft specific provisions in terms of this, then I think, first of all, it tends to depart from what the basic law is in terms of the Tucker Act or property rights, plus, you know, it sets a precedent and then we have all sorts of new determinations and solicitor's opinions flowing and there are all sorts of efforts, as you know, as you might expect, to gain a new interpretation of what a property right is. And so it leads us down a path that is very difficult. So I would just caution that simplicity in this instance is a virtue, in my view.

I understand, as we look at the myriad of different rights or the efforts to debate that, those get to be pretty long fights out in the West, as I recall.

A couple of other questions. Specifically, about the Montana compact, Dr. Fenn. The numbers and the indicators that you use I expect are relevant, or at least you believe they're relevant, to the geothermal features of Yellowstone. But it seems to me that 65 to 80 degrees Fahrenheit is fairly hot water, I mean by the standards of aquifer water, which is cold. I understand that as you go closer. But is the general area that we are dealing with—and I haven't seen the map here of what constitutes your map. Do you have a map? I see you have a lot of maps here. I don't know if these are your maps.

Dr. FENN. Yes.

Mr. VENTO. I think maybe we could use one of them to point out what the area is. I know Congressman Williams had talked about this 15-mile area.

Dr. FENN. Right.

Mr. VENTO. Can you generally explain what the area is that is covered by the compact?

Dr. FENN. May I go to the easel?

Mr. VENTO. Yes. There is a microphone there. You will have to kind of borrow them from your panelists.

Dr. FENN. I can get out of the way and just show you what we have here. I can stand on this side.

The compact area is this area right here. What you see here in this red checkered area are the recharge zones in the compact where they're not in the thermal zone but may be important drivers of the geothermal system.

Mr. VENTO. I understand.

Dr. FENN. And then this blue area is the actual discharge zone of the geothermal. And then of course the Island Park area in Idaho is right here in this part of the map. But the compact area covers this much of it right here, this being the 15-mile zone, in black.

Mr. VENTO. Right. And so the compact area covers the black line, or just the mapping that you have there?

Dr. FENN. Just the colored portion of the map. Right.

Mr. VENTO. And the scientists that you are working with have advised you that those recharge areas and other areas that may be utilized for wells are in fact within the zones. Ones that are important for the features that they believe would be relevant to the features of Yellowstone. Is that correct?

Dr. FENN. Yes, sir.

Mr. VENTO. And the features we have here that are outlined, you have recharge areas in pink and then the geothermal or well areas, you would be concerned with surface water and wells or anything in any of those, in any case. Going up or coming down, it's all the same water. Correct?

Dr. FENN. Yes. That's right. And the Corwin Springs is the green. Corwin Springs geothermal area is marked there in green.

Mr. VENTO. Is the water generally in this area much higher in temperature from these aquifers? This water is from what aquifer, principally? Is that the Madison aquifer? I mean the Madison is limestone; that wouldn't be a good aquifer for putting a well into.

Dr. FENN. I'm sorry, that's a technical question that I don't have the answer to.

Mr. VENTO. Well, maybe somebody else here does.

Mr. Tweeten, is there anyone around here?

Okay. Well, nobody wants to volunteer.

Mr. TWEETEN. Mr. Chairman, I hand that to Barb Cousins, our legal counsel, who is also a trained geologist, who I believe can give us information with respect to that.

Mr. VENTO. Okay. Give your name for the record. I didn't hear it, I'm sorry.

Ms. COUSINS. Mr. Chairman, I am Barbara Cousins. I am legal counsel for the Compact Commission.

The Madison limestone was considered to be a potential recharge area for the park, and that was why a number of the recharge boundaries were drawn within the valley where Gardner sits. And in the discharge area it's deep enough that it is not a production zone for groundwater wells.

The provisions in the compact that deal with water between 60 and 85 degrees state that it cannot be completed within the Madison group.

Mr. VENTO. Cannot be?

Ms. COUSINS. Cannot be completed. If it is producing from the Madison group, then it is given the same scrutiny that a well above 85 degrees would be given.

Mr. VENTO. So where is this water coming from, what formations? Other formations are there, but is it generally coming from sandstone formations?

Ms. COUSINS. The water that is being produced is in alluvial gravels.

Mr. VENTO. Alluvial gravels is where they're picking it up. So is it above? It's below, actually, the Madison formation then?

Ms. COUSINS. It's above the Madison formation.

Mr. VENTO. It's above.

Ms. COUSINS. The Madison formation is deeper.

Mr. VENTO. Yes. Well, it would be lower than alluvial gravels. That's right. But sometimes we get things turned around.

What is the most common water temperature in this area? If I can ask, Ms. Cousins. I don't know that Mr. Tweeten can answer the question, but if he can, I would invite him to do so. But we have some pretty high temperatures here for what is basically groundwater then if it's coming from alluvial gravels. What is the cone of influence in this area in terms of these wells in alluvial gravels? Can you give us some idea of the dimensions of these wells, given the volumes that would be prescribed? Take whatever c.f.s. you want.

Mr. TWEETEN. Mr. Chairman, with your indulgence, I will refer that question to Ms. Cousins.

Mr. VENTO. Yes, that's fine.

Ms. COUSINS. Mr. Chairman, I am not sure that I completely understand your question.

Mr. VENTO. Well, what is the average temperature of alluvial gravel groundwater that is removed from this area? I mean you have a range here that is fairly high. And you're telling me it is even surface. Then Mr. Tweeten, when he answered Mr. Lehman's question, said, "Well, as you get deeper, they get hotter." But we are dealing in surface waters here, so it isn't that, because of the depth of the removal so much as it is the fact that they are close to the Madison formation, which obviously has a hotter temperature because of geothermal temperatures.

Please proceed to answer the question if you can.

Ms. COUSINS. Mr. Chairman, one of the things that became acutely apparent when we were negotiating the compact is that we do not know the temperature of groundwater, and that is why we set up an inventory whereby every well existing in the area will be visited and the temperature will be measured. Adjustments on the restrictions can be made on recommendation of the technical oversight committee at that time.

It was the determination of the scientific working group that anything below 60 degrees Fahrenheit we were safe to assume that there was not a contribution by hydrothermal waters from wells that they had looked at in that area.

There was a small study that had been done in the West Yellowstone area because of water quality problems. The only wells that indicated any contribution by hydrothermal waters had chlorides in excess of 10 parts per million, which is one of the criteria looked at if the temperature is above 60 degrees and had temperatures in excess of 60 degrees.

Mr. VENTO. Well, it is chlorides that are apparently the primary solvent in the water. The water itself is solvent, but that would indicate activity that is related to the features, and it could impact the features in terms of its ability to carry dissolved substances, I assume.

Well, I am concerned about this. I understand the compact was hard to negotiate, but as I look at the makeup of the committee, for instance, I find out there is sort of an unknown here. You have U.S.G.S., which obviously has been more liberal with regard to its interpretation of what can and cannot go on; and two representatives from Montana; and then a fifth person, to be selected. Then they would make determinations as to new applications and then you are in fact grandfathering in existing wells, but add to a certain volume.

Now, I just want to state that that concerns me because it sort of seems to me that it places this particular appropriation of water, which you recognize, Mr. Tweeten, in your statement as a prior appropriation going back 100 years, but then since then we have had a lot of other applications, I assume, that have come in and have been adjudicated and given water rights ahead of the Park Service and, therefore, it may be or may not be detracting from or impacting on the features of the park.

I hope Dr. Fenn is listening to this because these are concerns. I mean it is a complicated matter, and I guess we have to work on the basis of what has been agreed to in good faith by the Park Service and the Federal agencies that have responsibility. But nevertheless, I think, it leaves a couple of unknowns. And so I think in legislating, you know, I would hope that with Congressman Williams and others we could resolve that.

We know specifically, Mr. Tweeten, what the number of grandfathered wells are in these zones that exist here. Can you tell me what the numbers are today?

Mr. TWEETEN. Mr. Chairman, that's one of the problems that we encountered in trying to determine the level of development that existed. We have permanent records that go back to 1973 indicating the number of permits that have been issued for those wells since then. And there may be permit records that go back before that. There are no good records with respect to small wells, below 35 gallons a minute, which is why the compact provides for an inventory process, which is going to be immediately undertaken to try to determine the total number of wells of all kinds that exist in this area.

Mr. VENTO. I know. But you are saying everything that is a priori is, in essence, grandfathered. And you know, some of those, depending upon volume and the characteristics of it, may have a profound impact on these features. I mean that concerns me, and, of course, the makeup of future development being determined by this committee. We can only trust in God, but others pay cash, you know. [Laughter.]

Especially when it comes to these types of features and these stakes here.

Mr. TWEETEN. Mr. Chairman, may I add something to that, because I am not sure that the concept of grandfathering has been clearly discussed.

Mr. VENTO. Okay.

Mr. TWEETEN. The existing wells are grandfathered with respect to permits. That is, we don't require any additional permitting of existing wells. There is no restriction, however, in the compact on the ability of the Park Service to seek enforcement of its Federal reserved water right against an existing well that has a junior priority date.

Mr. VENTO. All right. And I guess you are interpreting the National Park's Federal reserved water right as being prior to all of these, most all these permits?

Mr. TWEETEN. It is the senior right in that basin. There may be some mining rights that existed prior to that time, but those are nonconsumptive surface flow rights. We don't believe that there are any groundwater rights that predate the Park Service's 1872 permit.

Mr. VENTO. As you indicated, these surface rights can be very important because you need the water either way it's going. I mean unfortunately it has to go back down to come up, I assume. We don't produce any, I guess, in these aquifers themselves.

Mr. TWEETEN. And the surface rights are also important for other values within the park besides the groundwater values.

Mr. VENTO. Of course. Yes.

Well, I note the $2.3 million apparently is one effort. I mean normally if we have water rights and the National Government exercises them, we don't always expect to fund the State in terms of its activities, but because of the unusual nature of the geologic and hydrologic features here, that is apparently the basis, Dr. Fenn, for agreeing to contribute to this.

The State itself would be making some contribution. Is that correct?

Dr. FENN. Mr. Vento, yes. The $2.3 million is for the establishment and administration of the controlled groundwater area, specific to Yellowstone National Park. It does not relate to the overall water rights that have been negotiated for all the other units of the park that were talked about earlier.

The State will have some contribution. It will be mainly in-kind contribution, where members of the DNRC are going to be involved or members of the Montana Bureau of Mines. The controlled groundwater area will be established and administered by the Department of Natural Resources. The Montana Bureau of Mines and Geology will be doing the inventorying and monitoring of wells that are in place. It is going to be for primarily those activities that the $2.3 million is aimed at.

We intend that that money will go into a trust account in the State. So that what we are trying to achieve is putting enough money in to begin with so we will be able to work primarily off the interest, and be able to work off that money well into the future to fund these activities.

The department, the State, through this technical committee that Mr. Tweeten discussed, has two representatives on that. The State will certainly be picking up the full cost of their participation in the technical committee and they will be picking up a portion of the cost of the fifth person that will be on the technical committee as well.

Mr. VENTO. I appreciate that.

Let me just ask one more quick question, Dr. Fenn. Is there anything in the compact that limits the forum where the National Government could seek to enforce its water rights?

Dr. FENN. No, I don't believe that there is. And I think part of the reason why we feel we need this particular bill that has been proposed, with what we would propose as amendments, would be to help provide us the vehicle for making that enforcement. That's the reason we wanted one of our proposed amendments, is that vehicle. Currently this bill doesn't give us that.

Mr. VENTO. Well, you know we want to cooperate in the adjudication process of the State. Obviously, it has been one that has been later on the scene but is very important. But of course the question of the United States being able to appeal finally on a decision ultimately is important. We don't want to put too hard an edge on this. We hope that it will all be worked out in a context that has been subscribed to in the compact.

Mr. Chairman, thank you.

Thank you for your patience, Pat.

Mr. LEHMAN. Thank you.

Mr. Williams?

Mr. WILLIAMS. In a moment, Mr. Chairman.

Mr. VENTO. Mr. Thomas?

Mr. THOMAS. Thank you, Mr. Chairman. I am sorry I wasn't able to be here earlier. We have a hearing on USDA reorganization this morning.

At any rate, let me say that I do support the concepts in this bill, and supported it last year and intend to support it again.

I am concerned about buffer zones in general and in particular here, and I am concerned about State water law in that I think it needs to be protected in these kinds of bills. It seems to me we can find a way. Buffer zones should be limited to this sort of situation, and I am interested in insuring that the States continue to have as much representation and involvement and, indeed, authority as they possibly can. And I would like to work toward that.

Thank you, Mr. Chairman.

Mr. LEHMAN. Thank you.

Mr. Williams?

Mr. WILLIAMS. Thank you, Mr. Chairman.

Thanks to each of our panelists for being with us. We appreciate your support and appreciate your good counsel on this.

Let me say to Mr. Tweeten that I am particularly appreciative of you and your staff, specifically Ms. Cousins and Ms. Cottingham's kindness toward my staff as we worked together on the compact. You invited us into the room and were responsive to suggestions, and we are very appreciative of that.

Dr. Fenn, let me follow up on something that Chairman Vento asked with regard to the work in Idaho and Wyoming to try to arrive at similar compacts. Has such work started at all? Have we begun such a process in either Wyoming or Idaho to move toward what we have apparently achieved in Montana?

Dr. FENN. We have had some preliminary discussions, particularly with Idaho, and we do have some preliminary agreements for protection of water resources in Idaho around Yellowstone, but that does not include geothermal resources at this point. The Wyoming negotiations, at least to my understanding, have not been initiated at this point. We are really dependent upon using the Montana negotiating compact, once it's approved, as the role model in working with the other two States.

Mr. WILLIAMS. We, of course, were familiar with the Montana work during the last consideration of this bill, but we also knew that work had not even begun in the other States, and it was, we felt, in the best interest of Yellowstone to not wait the years necessary, although some urged that we wait until each State had worked out its own arrangements. But the Committee felt otherwise, and I think continues to hold to that.

As you remember, Dr. Fenn, during the last Administration, the Park Service had one view of subsurface development, geothermal subsurface development around Yellowstone, the Department of the Interior had a different view, somewhat different view, and it was the Department of the Interior's view which was at that time brought to this Committee. I assume from your testimony that the Park Service still holds its view that you oppose all subsurface geothermal development near Yellowstone Park?

Dr. FENN. I think that is a fair assessment. We are concerned that since it is a very difficult thing to prove or disprove definitively and with very many degrees of significance to the decimal point, that we just feel that it's much better to be very conservative in what we do so that we don't do irreparable damage inadvertently to the geothermal system. So caution is the way we would prefer that subsurface geothermal development proceed anywhere near Yellowstone.

Mr. WILLIAMS. And the change, of course, in this Administration was expressed best by Secretary Babbitt, who came before us not too long ago. And in a direct and very firm answer to my question about whether the Department of the Interior, under his stewardship, had changed its view toward my legislation, he indicated very firmly that it had and was now, along with the Park Service, fully in support of erring on the side of protecting Yellowstone.

We all recognize that, given current circumstances, with little or no additional drilling into the geothermal resources around Yellowstone, it is unlikely that Yellowstone will be damaged. But unlikely isn't good enough, not when you're talking about Yellowstone Park.

So I am pleased that both the Department of the Interior and the Park Service are now on the same side of supporting the zero-risk policy.

Mr. Tweeten, there are currently two subsurface wells in the Corwin Springs KGRA. Once the compact is in place, which it currently will be very shortly, what will have happened to the requests for those permits? What would now happen to requests for those permits had those wells not been drilled, the permits not been given, but that action be taken after the fact of the passage of the compact? What would happen to those permits and to that request?

Mr. TWEETEN. Well, Mr. Chairman, Congressman Williams, again not being fully conversant with all of the characteristics of those wells, but if my understanding is correct that they produce water in excess of 85 degrees, the permits would not be issued unless there was a finding made that that water in excess of 85 degrees was not part of the geothermal resource of Yellowstone Park, and that finding would have to be made by the Department of Natural Resources before it issued the permit. It would have to be made on recommendation of the technical oversight committee.

Mr. WILLIAMS. Have you or perhaps Mr. Simonich, anyone, been in touch, in contact with the States of Idaho, Montana, your counterparts there, about this compact process, and have you offered any help in spreading the faith to our brethren?

Mr. TWEETEN. Mr. Chairman, Congressman Williams, I don't know that those contacts have taken place, but we certainly will provide whatever assistance we can to those other States in their efforts to reach agreements with the Park Service. We think that our approach is the right approach in seeking to cooperate with the Federal Government, and we will certainly encourage those efforts on the part of the other States.

Mr. WILLIAMS. You worked closely with the process, so you know the difficulty and you know the time it takes to move through that. Given that experience, do you find value in this legislation in moving it through this Congress, or do you think we should wait until those other States come up with—perhaps—come up with a somewhat similar compact to what Montana has?

Mr. TWEETEN. Well, Mr. Chairman, Congressman Williams, from Montana's perspective, we find value in your legislation, but we urge you to tailor it to what has happened in Montana. With respect to what the situation might be in other States, it would be ironic, I guess, for us to take the position that Congress ought not to act. But we do—I mean we acted in our State because we wanted to have a role in the process. And if this legislation is crafted in such a way as to encourage the other States to take an active role, I think the prospect of having a Federal solution imposed on them will certainly give them the impetus that they need to come to the negotiating table and reach negotiated settlement similar to the one that we did.

Mr. WILLIAMS. Well, I like to think that the possibility of Federal action moved Montana a little more quickly to reach its agreement on the compact.

Mr. TWEETEN. I think that's true.

Mr. WILLIAMS. Yes. -Subformat:

Mr. Simonich, it's nice to see you back in Washington. I tell my colleagues here that Mark Simonich, prior to becoming the director of the Montana Department of Natural Resources and Conservation, worked on the Senate side as a staffer to Montana Senator Conrad Burns and advised Senator Burns on a number of issues. Did you advise him on this issue as well, Mr. Simonich?

Mr. SIMONICH. Mr. Williams, yes, I did. And thank you for the kind welcome. [Laughter.]

Mr. WILLIAMS. You're welcome.

You are in a critical position now, Mr. Simonich, and I want you to know personally that I am very appreciative of the work you did after you were confirmed as director to help move the compact.

Perhaps it was at the confirmation hearing—I don't recall—but there was an article, a news article that was printed in the Bozeman Daily Chronicle that came out just after your confirmation hearing. You will recognize the headline on this, Mark, that says, "Simonich. Not Worried about Geothermal Wells." As you know, this Committee is worried about the geothermal wells.

I assume that, like a lot of headlines, that doesn't quite get at what your worry and concern about protecting Yellowstone is. Let me tell you frankly I have a worry and concern about your concerns and the state of them because, as an adviser to Senator Burns, I assume you were one of those telling him this bill didn't need to pass last time.

So, I guess it's appropriate now, because of your critical position in the State, for me to first note that your testimony begins by saying you are in strong support of the compact negotiated in Montana but does not confirm any support at all for this legislation.

Does the Department of Natural Resources not support this legislation?

Mr. SIMONICH. Mr. Chairman, Representative Williams, I guess let me, if I could, address a couple of those comments as well. As you are well aware, sometimes you are not always reported entirely correctly in the press and a lot of time the headline doesn't reflect even what is in the article. And in that particular instance, it was a rather long discussion with a newspaper reporter and the references in the headline was really to a discussion about the total number of wells, geothermal wells, that were currently being drilled in the area. And from the information that we had had in the department, we didn't see an immediate threat that there were a lot of wells being drilled.

It does not reflect in any way, shape, or form my lack of concern or the lack of concern by the Governor or the State of Montana for the geothermal development. We are here because we are very concerned, and we want to make sure that the groundwater resources are protected.

There was, I guess you'd call it, a glitch in the Montana law previously. Geothermal resources were not directly addressed under State law. A person could drill a well and if it was under 35 gallons a minute—in fact, back a few years ago if it was under 100 gallons per minute—they didn't even need to apply to the State for a permit, they could just put it to beneficial use, notify the State, and receive a certificate of water right for that.

That led to the situation that we got into, and I think the bureaucracy in the State, the administration as well as the legislature, has recognized that that was a flaw, and we found a good way to work around that is through the compact, put into place a controlled groundwater area that will give much greater control to any type of development in that area.

I addressed specifically the compact this morning because that really has been the emphasis of what Montana has been doing. Montana, as I said earlier, this is a made-in-Montana solution. People in Montana really worked hard to come to this and show that they want to protect the park.

The State of Montana certainly would support your bill. We are not certainly here opposing your bill. We support the concept of protecting the park. As Mr. Tweeten said, we would like to see the bill amended so that it does include the provisions of the compact.

As Mr. Tweeten stated, I think it would be difficult for us to say from our vantage point that we think Federal restrictions ought to be placed on one of our neighboring States, however. If the bill is crafted in such a way that it encourages them to come to the table and negotiate with the Park Service like Montana did, then that would be very helpful for those States.

Mr. WILLIAMS. Well, I appreciate your support for the legislation. It was that glitch, as you call it, in Montana law as well as the many glitches in Idaho and Wyoming law, that prompted people in Montana to come up with a Montana-made solution to protect America's first national park. This bill was written by Montanans and supported by many, many people in Idaho and Wyoming. But this bill is in fact a Montana-made solution. That is why I am the author of it.

I agree with you, Mark, that this bill needs to comport now with this new development, which is the compact. Had we had the compact when I had first introduced the bill the last time, it would have been made to comport with the compact then. But there was no compact, and we had to move ahead in its absence.

And the problem now, I say to my two chairmen, is that we have one-third of the problem resolved, Montana's part of it. We still have Idaho and Wyoming to go. It seems to me that we ought to move ahead with this bill because this bill will become law, in my judgment, unless the Senate again delays and defuses it, long before Idaho and Wyoming have their part of a water compact process in place.

And so I am hopeful that we will continue to move ahead on it, and, Mr. Simonich, I am pleased to have your support for the legislation. And we will bring it, we will marry it with the Montana compact.

Thanks.

Mr. LEHMAN. Thank you, Mr. Williams.

Mr. Hinchey?

Mr. HINCHEY. Thank you very much.

I am new to this issue, so let me ask a naive question. First of all I want to express appreciation for the bill. Hopefully we will have this because it is obviously something that needs to be done for the resource.

Can you describe for me the difference between the legislation that has passed the legislature in the compact? Is it that the legislation implements the compact, or what is the distinction?

Mr. TWEETEN. Mr. Chairman, Representative Hinchey, the legislation, let me back up and put it in context. Under our water adjudication process, water compacts that are negotiated between the Federal Government and the Reserved Water Rights Compact Commission require approval by the Montana Legislature before they become effective. And that is the process that has just been completed in our Montana Legislature.

This compact has been submitted to the legislature. The legislature has approved it. When that occurs, it becomes State law. It, in essence, amends our Water Use Act to conform the Water Use Act to the compact.

Mr. HINCHEY. Is there a way to determine the differences in the level of protection that would be afforded the resource in comparing what is done in Mr. Williams's bill and the legislation that you have just passed?

Mr. TWEETEN. Mr. Chairman, there are differences between the bill and the compact. The bill adopts a 15-mile buffer zone. The compact adopts a somewhat smaller buffer zone with somewhat more sharply defined edges, shall we say. The bill provides a moratorium on hot water development. The compact provides what is, in effect, a moratorium on hot water development. The compact does not address existing wells. The bill, as I understand it, does. I think those are the major differences between the bill and the compact.

The compact, in addition, does a lot of other things as well with respect to Glacier Park, with respect to the Big Hole Battlefield, with respect to surface flows for those two units and for Yellowstone Park that are not addressed by the bill.

Mr. HINCHEY. Yes. And that is all very commendable, and I think that is very much to your credit. But I am just thinking about it now in the context of the protection of that particular resource within the park. And it would seem that the bill provides perhaps a greater degree of protection in the setting of that 15-mile limit, although it's an arbitrary limit, obviously. It would seem that that is a greater protection than what has been established in the compact. Is that not correct?

Mr. TWEETEN. Well, Mr. Chairman, I think the boundary that we have done in the controlled groundwater area is a boundary that was drawn with reference to specific scientific recommendations that were made a working group of scientists who reviewed the geology in the area and made determinations about where those lines ought to be drawn. And their conclusion is that anything outside of that line has no possible impact on the resource in the park.

So, to the extent that the lines are different, I don't think that the difference in the lines makes any difference because anything that is outside the controlled groundwater area, we have been told, is not an area of concern to the geothermal resource in Yellowstone Park.

Mr. HINCHEY. And the controlled groundwater is based on the temperatures, as you stipulated, 60 degrees and 85 degrees?

Mr. TWEETEN. There are varying restrictions depending on the temperature of water that is produced by a well in the controlled groundwater area. That's right.

Mr. HINCHEY. But anything that falls below 60 degrees is not restricted or controlled under the provisions of the compact?

Mr. TWEETEN. Except with respect to registration and data gathering, that is true as of now. The compact puts in place a process for adding restrictions on cold water development if the scientific data suggest that that is necessary.

Mr. HINCHEY. Sixty degrees seems rather warm to me. What was the basis for choosing that particular number?

Mr. TWEETEN. It was chosen based on the recommendation of the scientific working group. We were told by the scientists that water below the temperature of 60 degrees Fahrenheit is not geothermal water.

Mr. HINCHEY. So it's not water that comes from a geothermal source; that is water that has not been heated by a geothermal source?

Mr. TWEETEN. I think that's correct.

Mr. HINCHEY. Was there any consideration taken with regard to water that may enter the geothermal source and then be heated, any notion of protecting or paying attention to that particular water?

Mr. TWEETEN. With your indulgence, I think I would like to refer that question to our counsel. Would that be all right?

Mr. HINCHEY. Sure.

Ms. COUSINS. Mr. Chairman, and Congressman Hinchey, the recharge areas that are designated within the controlled groundwater area were designated with that in mind. The bulk of the area within those are under wilderness status. So it was considered that there was not a need for limits on the development of cold water that might be recharging the system at this time.

If I may, I would like also to point out that the compact actually goes much farther than what the Williams bill, as written, would do. That bill does not take into account inventory of cold water wells or the possibility of limiting them in the future if there is a cumulative impact from their development.

It also does not provide an enforcement mechanism by which to keep track of permitting and have continuing jurisdiction to modify permits in the future. It also refers only to geothermal resources which, in general, depending on various State laws, but in general is considered above 90 degrees Fahrenheit.

Mr. HINCHEY. If I may ask another question, based on your professional knowledge, how important is it relatively? I understand that the protection that has now been afforded in Montana is substantial and significant. How important is it relatively to engage the same kind of protection in the two other States that are involved?

Ms. COUSINS. Mr. Chairman, Congressman Hinchey, I don't know specifically the geology in those areas. I know in the Island Park area there are geothermal resources, and that would certainly be a very important area to protect. Most of the studies that have been done on the geothermal resource consider that the recharge areas are to the northeast and the northwest of the park, which are the areas in Montana, not areas in Wyoming or Idaho.

Mr. HINCHEY. Thank you very much.

Mr. LEHMAN. Thank you very much.

Are there other questions? Mr. Vento?

Mr. VENTO. Mr. Tweeten, under the compact that has been developed, who will have the burden of proving the negative; that is, that hot well water is not hydrologically connected to the Yellowstone system? Who would have that burden of proof? In other words, are you going to have to prove the negative, or is somebody, is it the applicant's responsibility or is it the Park Service's responsibility or the State's?

Mr. TWEETEN. Mr. Chairman, with respect to wells that are producing hot water, I believe the burden falls on the applicant for proof that it is not hydrologically connected.

With respect to cold water wells, I believe the burden falls on the Park Service to prove that there is a hydrologic connection.

Mr. VENTO. You described cold water wells as those that have temperatures below 60 degrees Fahrenheit?

Mr. TWEETEN. Right. I think that's right.

Mr. VENTO. Well, fine. Mr. Chairman, I appreciate the responsiveness, and I realize we are asking some difficult questions. As Ms. Cousins was noting, since the initial bill, there have been many refinements in this. In fact, I notice the recharge area goes outside the 15-mile limit.

So it is interesting to get the input and to try to get this more precisely. I guess we are going to have to figure out how to reference that. I don't think we are going to put the entire compact in the legislation and repass it. That I can tell you right now, Mr. Williams.

Do you have any further questions, Pat?

Mr. WILLIAMS. No.

Mr. VENTO. I would thank the chairman.

Mr. LEHMAN. Thank you very much.

We appreciate your testimony and look forward to working with each of you.

Now we will hear from our next panelist, Mr. Ed Francis.

Mr. Francis, welcome to the Committee. We appreciate your being here today. Without objection, we will put your complete statement and any other documents you have for the Committee in the record, and we will ask you to proceed.

STATEMENT OF EDWARD L. FRANCIS, VICE PRESIDENT, CHURCH UNIVERSAL AND TRIUMPHANT, INC., CORWIN SPRINGS, MONTANA

Mr. FRANCIS. Thank you, Mr. Chairman. As noted, my name is Edward L. Francis, and I am the vice president and business manager of the Church Universal and Triumphant.

The headquarters and religious community of our church are located within the Corwin Springs Known Geothermal Resources Area, and we stand to be directly impacted. The church does own water rights to La Duke Hot Spring dating back to 1899, as well as to a thermal well on its property drilled in 1986.

In 1987 I gave testimony on the Geothermal Steam Act Amendments bill. That law imposed a temporary moratorium in the KGRA and directed the U.S.G.S. to conduct a study on the impact of potential geothermal development on Yellowstone National Park.

With regard to the church's existing well, the U.S.G.S. specifically found that hot water could be withdrawn at the rate of 180 to 140 gallons per minute without any risk whatsoever of adverse effects on the park's thermal features.

As I have stated in testimony on the predecessor to this bill in the 102nd Congress, we are concerned that a proposal to create a permanent ban on geothermal resource use in the KGRA is in fact primarily directed at confiscating all of the church's geothermal water rights both at its well and the spring.

We do not suggest that this is based on any form of discrimination. It is based primarily simply on a reading of the wording of the bill. Previous testimony and debate on this proposed legislation has concentrated on the lack of State regulatory restrictions as well as on the issue of whether or not it constitutes a taking of private property.

In particular, it was asserted that the church had not been granted a water right and, therefore, had no property rights associated with its well. However, factual and legal information developed in the Senate Energy and Natural Resources Committee disclosed that, without revision of the bill, the taking likely would have been effected. This assessment was based upon a number of different factors, each of which still appears to be present in the current bill.

In 1992 the church was granted a water right to its thermal well by the State of Montana for production at a rate of approximately 33 gallons per minute, not to exceed 6.4 acre-feet per year. This volume of use equates to a year-round sustained production of under four gallons per minute and totals under five percent of the no-impact parameters specified by the U.S.G.S.

Objections to this water right on several grounds were considered and were rejected by the Montana Department of Natural Resources and Conservation, as we have heard today, the State's water adjudication authority.

The well installed on the church's property in 1986 is tangible property, similar to a building or structure. Water rights granted by the State of Montana are recognized as a distinct property right pertinent to the well. We believe that if the Congress prohibits the use of this facility and the exercise of the water rights in spite of the U.S.G.S. findings of no risk to Yellowstone Park, it will be effectively taking the church's property for public benefit without the constitutionally required compensation.

All of this information together resulted in the unanimous adoption in the Senate Energy Committee of bipartisan amendments which recognized the right of a property owner to receive just compensation for the loss of any State-recognized property rights and provided for the moratorium to be lifted when the affected States enacted laws that protect Yellowstone Park.

More recently, the State of Montana, through its Reserved Water Rights Compact Commission, has negotiated the compact, which has been referred to, with the National Park Service, which establishes the Yellowstone Controlled Groundwater Area adjacent to the park. The compact utilizes the existing system of adjudicating Federal water rights claims under State law and avails itself of well-recognized State authority to establish and regulate controlled groundwater areas in order to achieve ironclad protection for Yellowstone Park's hydrothermal system.

It is significant to note that no taking of private property is indicated by these regulations.

It is now therefore clear that Montana will be regulating the appropriation of geothermal water so as to protect Yellowstone Park and that no existing water rights, including the rights held by the church, will in any way affect the park's thermal features, including Old Faithful.

However, as currently drafted, we believe that H.R. 1137 is in conflict with the Yellowstone compact in that it appears to abrogate the State's right to regulate water within its borders. It enacts restrictions that are unnecessary and are inconsistent with the compact and will cause the taking of existing water rights recognized under State law without just compensation.

We therefore recommend that the bill be revised to eliminate the ban on the use of existing water rights in the KGRA, to recognize the Yellowstone compact in Montana in lieu of any moratorium, and also to enact into Federal law those provisions needed to give the compact full effect. Such revisions would appear to be consistent with the bill passed out of Committee in the Senate last year.

If this is done, we can all be assured that the thermal wonders of Yellowstone National Park will be protected and preserved for posterity and that private rights and State prerogatives will not have been unduly impaired in the process.

Mr. Chairman, we believe that it is fitting that the hearing on this bill is being held on Earth Day 1993. This occasion may be used to show that man can live in harmony with the environment and that our cherished rights and liberties in this Nation secured by the Constitution need not be suppressed or compromised in order to achieve that harmony.

Mr. Chairman, I wish to thank you for this opportunity to express our concerns to the Committee, and I am open for any additional questions that members of the committee may have.

[Prepared statement of Mr. Francis and attachments follow:]

Statement of

CHURCH UNIVERSAL AND TRIUMPHANT, INC.

Box 5000, Corwin Springs, Montana 59030-5000

Presented by

EDWARD L. FRANCIS, *Vice President*

For a Joint Hearing on

H.R. 1137

"TO AMEND THE GEOTHERMAL STEAM ACT OF 1970

(30 U.S.C. 1001-1027), AND FOR OTHER PURPOSES"

Before the

ENERGY AND MINERAL RESOURCES SUBCOMMITTEE

and the

NATIONAL PARKS, FORESTS, AND

PUBLIC LANDS SUBCOMMITTEE

of the

HOUSE COMMITTEE

ON NATURAL RESOURCES

April 22, 1993

EXECUTIVE SUMMARY

The headquarters and religious community of Church Universal and Triumphant are located to the north of Yellowstone National Park and are contained within the Corwin Springs Known Geothermal Resources Area (KGRA) as well as the 15-mile buffer zone proposed in H.R. 1137. The church owns water rights to LaDuke Hot Spring and to a thermal well on its property within the area.

Hot water was first appropriated from LaDuke Hot Spring by the church's predecessors in 1899. In 1986 the church installed the thermal well at the site of its new headquarters. The church voluntarily agreed to cap the well and cooperate with a congressionally authorized U.S. Geological Survey (USGS) study of potential impacts on Yellowstone Park's geothermal features.

The USGS study released in 1991 specifically found that hot water could be withdrawn from the well at a sustained rate of 5-9 L/s (80-140 gpm) without any risk of adverse effects on the park's thermal features. An "Impact Analysis" issued by Yellowstone Park did not controvert the USGS findings pertaining to the church's well.

Previous testimony and debate on the predecessor to this bill in the 102nd Congress (H.R. 3359) concentrated on the lack of state regulatory restrictions to prevent adverse impacts to Yellowstone Park hydrothermal systems, as well as on the issue of whether or not the legislation constitutes a "taking" of private property under applicable law. In particular, it was asserted that the church had no property rights associated with its well that would be lost.

Factual and legal information developed in the Senate Energy and Natural Resources Committee disclosed that, without revision of the bill, a taking likely would have been effected. This resulted in the unanimous adoption of bipartisan amendments to the bill in the Senate to address the taking issue and to allow states to adopt regulations to protect Yellowstone Park. We supported this amended version of the legislation.

We are concerned that the proposed ban in the Corwin Springs KGRA (as provided in Section 2 of the bill) is in fact primarily directed at our church. The church is the only private holder of existing thermal water rights and is the owner of over two-thirds of the private property in the small area that comprises the KGRA. As currently written, H.R. 1137 would appear to confiscate all of the church's geothermal water rights, both at its well and spring, without due process and without any provision for just compensation.

In 1992 the church was granted a certificate of water right to its thermal well by the state of Montana totaling 33.5 gpm, not to exceed 6.4 acre-feet per year. This use equates to a year-round sustained production of under 4 gpm, and totals under 5 percent of the no-impact parameters specified by the USGS. Objections to this water right on several grounds were considered and rejected by the Montana Department of Natural Resources and Conservation, the state's administrative water adjudication authority. The Montana Department of Health and Environmental Sciences also confirmed those conclusions in an environmental impact statement issued late last year.

More recently, the state of Montana, through its Reserved Water Rights Compact Commission, has negotiated a compact with the National Park Service which establishes a "Yellowstone Controlled Groundwater Area" adjacent to the park. The boundaries of the area were drawn by a panel of qualified scientists and range from several miles to more than fifteen miles outside of the park. Permits may be obtained to appropriate geothermal groundwater after January 1, 1993 only after review by a technical oversight committee composed of state and federal scientists (including the National Park Service) and a showing by an applicant through clear and convincing evidence that the appropriation does not include Yellowstone Park hydrothermal water.

The compact utilizes the existing system of adjudicating federal water rights claims under state law and avails itself of well-recognized state authority to establish and regulate controlled groundwater areas in order to achieve ironclad protection for Yellowstone Park's hydrothermal system. The compact even goes a step further than the pending federal legislation by regulating the future appropriation of nongeothermal groundwater that may recharge the Yellowstone hydrothermal system. Yet it does not constitute a taking. The Yellowstone compact is presently being approved by the Montana legislature.

It is now therefore clear that Montana will be regulating the appropriation of geothermal water so as to provide full protection for Yellowstone Park and that no existing water rights, including the rights held by the church, will in any way affect any of the park's features, including Old Faithful. We have fully supported the enactment of this compact.

However, as currently drafted, H.R. 1137 is in conflict with the Yellowstone compact in that it appears to abrogate the state's right to regulate water within its borders, enacts restrictions that are unnecessary and are inconsistent with the compact, and will cause a taking of existing water rights recognized under state law without just compensation.

We therefore recommend that H.R. 1137 be revised to eliminate the ban on the use of existing water rights in the Corwin Springs KGRA, to recognize the Yellowstone compact in Montana in lieu of any moratorium and enact into law those federal provisions needed to give the compact full effect, and to include a provision lifting the moratorium in Wyoming and Idaho when those states enact laws that regulate geothermal development and protect the park's thermal features.

If this is done, we can all be assured that the thermal wonders of Yellowstone National Park will be protected and preserved for posterity and that private rights and state prerogatives will not have been unduly impaired in the process.

It is fitting that the hearing on this bill is being held on Earth Day 1993. This occasion may be used to show that man can live in harmony with the environment and that our cherished rights and liberties in this nation, secured by the Constitution, need not be suppressed or compromised in order to achieve that harmony.

# # #

STATEMENT

BACKGROUND

Mr. Chairman, my name is Edward L. Francis. I am the vice president and business manager of Church Universal and Triumphant.

H.R. 1137 seeks to impose a permanent ban on the use of any geothermal well within the Corwin Springs Known Geothermal Resources Area (KGRA). It also seeks to impose at least a four-year moratorium in the states of Wyoming, Idaho and Montana on the use of any geothermal wells within 15 miles of Yellowstone National Park while a new study is conducted by the National Park Service (NPS) in consultation with the Forest Service and the United States Geological Survey (USGS).

The headquarters and religious community of our church are located within the Corwin Springs KGRA, as well as within the 15-mile buffer zone proposed in H.R. 1137, and we stand to be directly impacted. Hot water from LaDuke Hot Spring was first appropriated in 1899 and used by our predecessors to heat a 72-room hotel and health spa. In 1986 we, as the owner of all of the private water rights to the spring, drilled a well at our headquarters 700 feet away, across the Yellowstone River. The installation of the well and associated facilities was, and has remained, within the provisions of Montana Water Law.

In 1987 I gave testimony on the Geothermal Steam Act Amendments bill, which was eventually passed as Public Law 100-443. That law imposed a temporary moratorium on production from existing and new geothermal wells in the Corwin Springs KGRA and directed the USGS to conduct a study on the impact of present and potential geothermal development on the thermal features within Yellowstone Park.

Concerns were expressed by park officials and members of the public. Because of the importance of this issue, we were careful to exercise restraint and to cooperate in the gathering of scientific data for the USGS study. We stated from the beginning that we would abide by the USGS conclusions.

In 1991 the study was completed and transmitted to Congress. The report issued by the USGS drew scientific conclusions concerning the effects of potential geothermal development in the KGRA, particularly with regard to the existing thermal well on the church's property.

In the 102nd Congress a bill similar to H.R. 1137 (H.R. 3359) was passed by the House of Representatives. The bill was amended in the Senate Energy and Natural Resources Committee in several respects, but was never acted upon by the full Senate. I gave testimony on this bill in 1991 and in 1992.

As I have stated in prior testimony, we are concerned that the proposal for the addition of Section 30 to the Geothermal Steam Act (as provided in Section 2 of the bill), which would create a permanent ban on geothermal resource use in the Corwin Springs KGRA is in fact primarily directed at our church. The church is the only private holder of existing thermal water rights and is the owner of over two-thirds of the private property in the small area that comprises the KGRA.

The USGS report set forth general and specific findings. With regard to the church's existing well, the USGS specifically found that hot water could be withdrawn at the rate of 5-9 L/s (approximately 80-140 gpm) without any risk whatsoever of adverse effects on the park's thermal features.

A separate "Impact Analysis" issued by Yellowstone Park did not controvert the USGS findings pertaining to the church's single well and existing water rights. Yellowstone Park Superintendent Robert D. Barbee stated in his report that the church's "single well is not the issue." Rather, he warned of the dangers of proliferating geothermal development throughout the entire region around the park.

In addition to banning the use of any new or existing geothermal wells, proposed Section 30 would also prohibit the "development of...any facility related to the use of subsurface geothermal resources" within the Corwin Springs KGRA. These restrictions are worded vaguely and could inadvertently result in the confiscation of the church's water rights at LaDuke Hot Spring. Under Montana Water Law, the legal definition of a well includes a developed spring. The facilities at LaDuke Hot Spring also have subsurface components, such as an infiltration gallery, spring reservoir and water collection and conveyance piping.

As currently written, H.R. 1137 would appear to be directed at confiscating all of the church's geothermal water rights, both at its well and the spring, without due process and without any provision for just compensation.

Previous testimony and debate on this proposed legislation has concentrated on the lack of state regulatory restrictions to prevent adverse impacts to Yellowstone Park hydrothermal systems, as well as on the issue of whether or not the legislation constitutes a "taking" of private property under applicable law. In particular, it was asserted that the church had not been granted a water right and therefore had no property rights associated with its well that would be lost as a result of the ban to be imposed within the Corwin Springs KGRA.

However, factual and legal information developed in the Senate Energy and Natural Resources Committee disclosed that, without revision of the bill, a taking likely would have been effected by the ban. This taking assessment was based upon a number of different factors, each of which is still present in H.R. 1137.

TAKING OF PRIVATE PROPERTY WITHOUT JUST COMPENSATION

First, proponents of the legislation have argued that the ban does not constitute a taking because it is merely a land use regulation instead of an actual confiscation. Cases have been cited upholding the regulation of private property, without constituting a taking, in situations where there is a "legitimate government interest." Certainly, the protection and preservation of Yellowstone Park's thermal features can be said to constitute a legitimate government interest.

However, information submitted to the Senate Energy and Natural Resources Committee pointed out that, according to the cases, such regulation must also substantially advance the purported purpose of the regulation or it will be recognized as a taking. There must be a "precise fit" between the statutory end sought to be achieved and the means chosen to achieve it. Normally, this involves choosing the "least restrictive means" of achieving the legitimate government interest.

Information was also submitted to the committee showing that a water right is considered to be a distinct and separate property right under Montana law.

H.R. 1137, and the prior legislation, have sought to ban not only the future appropriation of thermal water within the Corwin Springs KGRA but also existing water rights, without clear justification. In particular, the findings of the USGS report and other scientific studies do not justify an absolute ban nor is there any indication that the exercise of the existing water rights will adversely impact Yellowstone Park. It therefore follows that if a total ban is enacted, as opposed to less restrictive means of regulation that are available, a taking is indicated.

This is consistent with Superintendent Barbee's recommendation that no subsurface development be permitted with the Corwin Springs KGRA based upon his concerns about setting an adverse precedent, rather than upon any documented impacts or threats. In his transmittal memo of June 21, 1991 accompanying the "Impact Analysis" to the Director of the NPS, Superintendent Barbee stated that such a ban "would require congressional action that would constitute a federal 'taking' of the geothermal resource in the KGRA."

Copies of the legal and factual information submitted to the Senate Energy and Natural Resources Committee in 1992 are also being submitted for the record in these current proceedings on H.R. 1137.

In 1992 the church was granted a Certificate of Water Right to its thermal well by the state of Montana for production at a rate of 33.5 gpm, not to exceed 6.4 acre-feet per year (copy attached). This use equates to a year-round sustained production of under 4 gpm, and totals under 5 percent of the no-impact parameters specified by the USGS. Objections to this water right on several grounds were considered and rejected by the Montana Department of Natural Resources and Conservation, the state's administrative water adjudication authority.

One such objection was the claim that the well was illegally drilled in 1986. As has been pointed out in previous hearings, prior permits were required at that time only for wells intended to appropriate over 100 gallons per minute. Since this well was drilled as a test well and the amount of any possible appropriation had not been determined, those provisions did not apply. Furthermore, a few hours of pump testing in 1986 did not constitute an appropriation or an intent to appropriate over 100 gpm.

Another objection was that the church allegedly breached an agreement with the Montana Department of Health and Environmental Sciences in the appropriation of 33.5 gpm that occurred in 1992. However, that prior agreement pertained only to a contemplated "change in the point of diversion" of the existing water rights held by the church to LaDuke Hot Spring at a rate of up to 400 gpm, a process which would have required prior state approval. The agreement did not apply to exempt appropriations of under 35 gpm, for which no state permits were required in 1992. The department confirmed these conclusions in an environmental impact statement issued late last year.

The well installed on the church's property in 1986 is a tangible property asset similar to a building, structure or appurtenance placed upon private land. It is not a speculative idea or future plan, but an existing facility ready to be used. Water rights to the well granted by the state of Montana in 1992 are also recognized as a distinct property right appurtenant to the well. If the Congress prohibits the use of this facility and the exercise of the water right, in spite of the USGS findings of no risk to Yellowstone Park, it will effectively be taking the church's property for public benefit without the constitutionally required compensation.

It has been argued by some that the government should not pay a property owner to refrain from damaging the environment. However, whether or not that familiar argument may be valid in other cases, it clearly does not apply here. The USGS has specifically found that the church's use of its single well at rates below 80 to 140 gallons per minute will not adversely impact any of the park's thermal features.

Yellowstone Park officials have not contradicted the USGS on this issue. Specifically with regard to the church's single well, Superintendent Barbee has said, "It's not one well but the precedent of starting to drill holes into these aquifers. It's the next 10 wells, 20 wells, 200 wells that people keep punching" (see attached copy of article from Bozeman Daily Chronicle, 6/30/92). This position was summarized in a later article as follows: "Yellowstone Superintendent Bob Barbee said earlier this year the Church's well itself may not have an impact on Yellowstone but it sets a precedent for other drilling in the area" (see attached copy of article from Bozeman Daily Chronicle, 9/14/92). As I have stated in prior testimony, the church has no intention of drilling any other thermal wells.

The factual information and legal opinions offered to the Senate Energy and Natural Resources Committee are not inconsistent with the opinions given by the Congressional Research Service on this subject. All of this information taken together resulted in the unanimous adoption in the Senate of bipartisan amendments to H.R. 3359 which recognized the right of a property owner to receive just compensation for the loss of any state-recognized property rights, and provided for the moratorium to be effective only until the affected states enact laws regulating geothermal development in a manner that protects the thermal features of Yellowstone Park. We supported this amended version of the legislation.

STATE REGULATION WITHOUT A TAKING

More recently, the state of Montana, through its Reserved Water Rights Compact Commission, has negotiated a compact with the NPS which establishes a "Yellowstone Controlled Groundwater Area" adjacent to the park. The boundaries of the area were drawn by a panel of qualified scientists and range from several miles to more than 15 miles outside of the park. Permits may be obtained to appropriate geothermal water after January 1, 1993 only after review by a technical oversight committee composed of state and federal scientists (including the NPS) and a showing by an applicant through clear and convincing evidence that the appropriation does not include Yellowstone Park hydrothermal water.

The compact utilizes the existing system of adjudicating federal water rights claims under state law and avails itself of well-recognized state authority to establish and regulate controlled groundwater areas in order to achieve ironclad protection for Yellowstone Park's hydrothermal system. The compact even goes a step further than the pending federal legislation by regulating the future appropriation of nongeothermal groundwater that may recharge the Yellowstone hydrothermal system. Since the regulations attempt to use the least restrictive means of achieving the purpose of protecting Yellowstone Park's hydrothermal system, no taking of private property is indicated.

The Yellowstone compact has passed the House of Representatives of the Montana Legislature and is expected to be passed shortly by the Montana Senate and signed into law by the Governor.

It is now therefore clear that Montana will be regulating the appropriation of geothermal water so as to protect Yellowstone Park and that no existing water rights, including the rights held by the church, will in any way affect any of the park's features, including Old Faithful. We have fully supported the enactment of this compact throughout the process.

However, as currently drafted, H.R. 1137 is in conflict with the Yellowstone compact in that it appears to abrogate the state's right to regulate water within its borders, enacts restrictions that are unnecessary and are inconsistent with the compact, and will cause the taking of existing water rights recognized under state law without just compensation.

We therefore recommend that H.R. 1137 be revised to eliminate the ban on the use of existing water rights in the Corwin Springs KGRA, to recognize the Yellowstone compact in Montana in lieu of any moratorium and enact into law those federal provisions needed to give the compact full effect, and to include a provision lifting the moratorium in Wyoming and Idaho when those states enact laws which regulate geothermal development in such a manner as to protect the park's thermal features. Such revisions would be consistent with the bill passed out of committee in the Senate last year.

If this is done, we can all be assured that the thermal wonders of Yellowstone National Park will be protected and preserved for posterity and that private rights and state prerogatives will not have been unduly impaired in the process.

It is fitting that the hearing on this bill is being held on Earth Day 1993. This occasion may be used to show that man can live in harmony with the environment and that our cherished rights and liberties in this nation, secured by the Constitution, need not be suppressed or compromised in order to achieve that harmony.

Mr. Chairman, I wish to thank you for this opportunity to share our concerns with the committee and I would be pleased to answer any additional questions that members of the committee may have.

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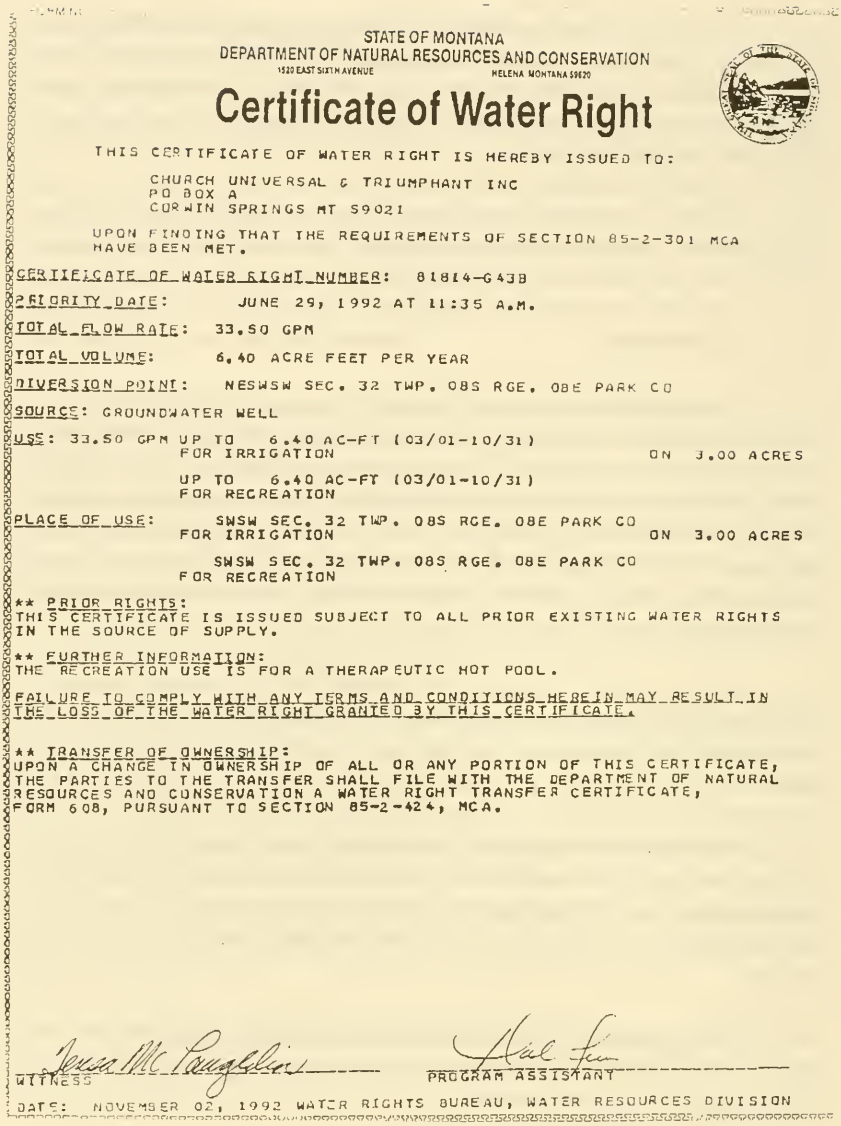

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1520 EAST SIXTH AVENUE HELENA MONTANA 59620

Certificate of Water Right

THIS CERTIFICATE OF WATER RIGHT IS HEREBY ISSUED TO:

CHURCH UNIVERSAL & TRIUMPHANT INC
PO BOX A
CORWIN SPRINGS MT 59021

UPON FINDING THAT THE REQUIREMENTS OF SECTION 85-2-301 MCA HAVE BEEN MET.

CERTIFICATE OF WATER RIGHT NUMBER: 81814-G43B

PRIORITY DATE: JUNE 29, 1992 AT 11:35 A.M.

TOTAL FLOW RATE: 33.50 GPM

TOTAL VOLUME: 6.40 ACRE FEET PER YEAR

DIVERSION POINT: NESWSW SEC. 32 TWP. 08S RGE. 08E PARK CO

SOURCE: GROUNDWATER WELL

USE: 33.50 GPM UP TO 6.40 AC-FT (03/01-10/31)
FOR IRRIGATION ON 3.00 ACRES

UP TO 6.40 AC-FT (03/01-10/31)
FOR RECREATION

PLACE OF USE: SWSW SEC. 32 TWP. 08S RGE. 08E PARK CO
FOR IRRIGATION ON 3.00 ACRES

SWSW SEC. 32 TWP. 08S RGE. 08E PARK CO
FOR RECREATION

** PRIOR RIGHTS:
THIS CERTIFICATE IS ISSUED SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY.

** FURTHER INFORMATION:
THE RECREATION USE IS FOR A THERAPEUTIC HOT POOL.

FAILURE TO COMPLY WITH ANY TERMS AND CONDITIONS HEREIN MAY RESULT IN THE LOSS OF THE WATER RIGHT GRANTED BY THIS CERTIFICATE.

** TRANSFER OF OWNERSHIP:
UPON A CHANGE IN OWNERSHIP OF ALL OR ANY PORTION OF THIS CERTIFICATE, THE PARTIES TO THE TRANSFER SHALL FILE WITH THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION A WATER RIGHT TRANSFER CERTIFICATE, FORM 608, PURSUANT TO SECTION 85-2-424, MCA.

Teresa McLaughlin
WITNESS

PROGRAM ASSISTANT

DATE: NOVEMBER 02, 1992 WATER RIGHTS BUREAU, WATER RESOURCES DIVISION

Bozeman Daily
CHRONICLE
Tuesday, June 30, 1992 • Bozeman, Montana

Church taps geothermal well

By SCOTT McMILLION
Chronicle Staff Writer

LIVINGSTON — In an effort to plug a legal loophole, the Church Universal and Triumphant has uncapped its geothermal well and filled a swimming pool with the hot water it produces.

The move could bolster the church's argument that it deserves to be compensated — possibly to the tune of $450,000 — if a bill banning geothermal development near Yellowstone National Park passes the U.S. Congress. The issue comes up for a Senate hearing Wednesday.

Uncapping the well appears to be legal and probably establishes a new water right, according to Donald MacIntyre, chief legal counsel for the Montana Department of Natural Resources and Conservation.

However, Yellowstone National Park Superintendent Bob Barbee said today he is worried about the effects on Yellowstone's geysers and thermal features, as well as the precedent that may be set by the church's decision to start the pump.

"It's not one well but the precedent of starting to drill holes into these aquifers," Barbee said today in a telephone interview. "It's the next 10 well, 20 wells, 200 wells that people keep punching."

Yellowstone was established in 1872 specifically to protect its geothermal features, Barbee noted. Similar features around the world have been altered by nearby development.

(More Taps, page 10)

Taps/*from page 1*

Pumping began on Sunday, church vice president Ed Francis said in a press release Monday. The move is an effort to "close a loophole" in arguments by people who don't want the government to give the church any money if federal law bans development of its well.

And if the church filled out its paperwork correctly, it probably has established a new but limited water right with its well on the west bank of the Yellowstone River, the DNRC lawyer said.

"It is a new right" and does not affect the church's rights to LaDuke Hot Spring on the other side of the river, MacIntyre said. "By law the department has to issue a water right" if the church's application is complete and the use of the water is "beneficial."

MacIntyre said department staffers will conduct a field investigation of the well to determine if what is on the ground agrees with what is in the paperwork.

Francis said the church has built a swimming pool near the well, which is on a grassy bench used for storing trailers and is a mile or more from the church's inhabited structures. The church wants eventually to build a new headquarters complex there. A 32-gallon-per-minute pump and associated piping have been installed on the well, Francis said.

MacIntyre said the amount of the new water right will depend on actual usage and may be less than 32 gallons per minute. Using more than 35 gallons per minute from one well may require an environmental impact statement before approval. When the well was drilled and tested in 1986, it was pumped at a rate of 400 gallons per minute. Citing a U.S. Geological Survey report, Francis said the well could be pumped at up to 140 gpm with "no risk of adverse effects on thermal features" in the park.

Barbee said that report is also full of warnings about using the well. The National Park Service issued a separate report that was much more cautious about geothermal development outside the park.

Congressman Pat Williams, D. Mont., saying that any risk to Yellowstone is too great, has authored the "Old Faithful Protection Act," which would ban geothermal development within 15 miles of Yellowstone National Park, an area than includes the church's well. If the bill passes, the church wants $450,000 in compensation for losing the well, which has been capped since it was drilled and tested in 1986.

That money would pay for a pipeline from LaDuke Hot Spring across the Yellowstone River to the church's planned development. The church owns water rights at LaDuke.

The bill has already passed the House and is scheduled for a hearing in the Senate Energy and Natural Resources Committee Wednesday.

The church's announcement also came the same day that the U.S. Supreme Court issued a decision making it easier for private property owners to win compensation when the government restricts development on their property to protect public interests.

The church advocates that Williams bill is a "taking" of private property rights, and began using the well to bolster the legal status of its rights. " We had no choice but to proceed. It's a shame it had to come to this," Francis said.

Sen. Conrad Burns, R. Mont., and two other Republican senators have advocated compensating the church but Burns backed off on that position last week after he learned the of the state DNRC's legal opinion that the church had no legal right to use the well.

But all the church had to do to establish a right was begin a "beneficial use" of up to 35 gallons per minute and file a notice with DNRC.

Burns' spokesman Bryce Dustman said today Burns will introduce amendments that would compensate anyone who owns a valid water right that was lost during the two-year moratorium in Williams' bill. The amount would be determined by a panel of appraisers.

Francis said in the press release the church had voluntarily avoided using the well and has suffered unreasonably because of it.

"Good faith and cooperation haven't carried much weight," he said. "We've given priority to the protection of Yellowstone Park by not moving forward, but no one has given any consideration to private property rights. In fact, waiting has done nothing but hurt us."

If Congress passes Williams' bill, Francis said, he wants to see "balance and fairness in the law to also allow for private property to be recognized and protected."

"Once maps (of the geothermal aquifer) are circulated, what are we going to be faced with?" Barbee asked, adding that it doesn't matter who develops wells. "I don't care if it's the Girl Scouts."

The USGS study of the Corwin Springs area said the church's well alone probably would have no effect on the park's famous geysers and hot pools. However, maps that accompanied that study show geothermal aquifers that underlie private land surrounding the park.

Bozeman
Daily Chronicle
Big Sky
Monday, September 14, 1992 3

Geothermal bill's chances slim, Baucus aide says

By SCOTT McMILLION
Chronicle Staff Writer

A bill to protect thermal features in Yellowstone National Park from drilling outside the park is inadequate and has very slim chances of passing the U.S. Senate this year, according to a legislative aide to Sen. Max Baucus.

"It doesn't look likely that anything is going to move in this Congress," Baucus aide Curt Rich said today. "If we pass the bill as it is, it's not an act to protect Yellowstone, it's a bill the protect the interests of the Church Universal and Triumphant."

Baucus' office is working on amendments to the bill, but with only three weeks left in this session of Congress, getting the bill out of the Senate is unlikely, Rich said.

The bill, authored by Rep. Pat Williams and known as the Old Faithful Protection Act, passed the House earlier this year and later was amended by Sen. Conrad Burns in a Senate Committee.

As originally written, Williams' bill would have banned all subsurface geothermal activity around Yellowstone. Church officials and some Republican senators criticized the measure as a means of "taking" the church's water rights without compensation.

Burns' amendments would ban permanently all geothermal leasing on federal land within 15 miles of Yellowstone. They also would impose a three-year moratorium on geothermal drilling on private land within 15 miles of Yellowstone in Wyoming and Montana and order a federal study of possible impact on Yellowstone's thermal features.

However, that moratorium exempted the Corwin Springs area, where the church wants to use the hot-water well it uncapped briefly in June, because that area already has been studied by the U.S. Geological Survey.

Before the church's well could be used, according to Burns' formula, the state of Montana would have to pass "geothermal legislation which will protect Yellowstone." Several critics have said Burns' amendments put the responsibility of protecting Yellowstone in the hands of state government, which may not be equipped to do so. Rich echoed that position today.

"I'm not saying the state would do a shoddy job but it's an awesome responsibility," Rich said, stressing that geothermal plumbing is very difficult to understand.

Because only three weeks remain in this session of Congress, chances are slim the Senate will consider the bill, Rich said. If the bill is reintroduced next year, it probably will be in a different and stronger form.

"If that means going back to the drawing board next year and drafting a new bill, so be it," Rich said. "The best position to take is to do it right the first time."

The church drilled the well in 1966 and it has been capped most of the time since then, despite a USGS finding that the well probably would have no impact on nearby Yellowstone. The church briefly uncapped the well in June and piped water to a swimming pool in an effort to establish a "beneficial use" under state law. State officials then ordered the church to shut down the well.

Yellowstone Superintendent Bob Barbee said earlier this year the church's well itself may not have an impact on Yellowstone but it sets a precedent for other drilling in the area.

Burns' amendments would require the "takings" issue to be resolved in a district court.

Mr. LEHMAN. Thank you very much, Mr. Francis.

For what purpose did the church drill its well in 1986?

Mr. FRANCIS. Mr. Chairman, the well originally drilled in 1986 was an exploratory well to determine if geothermal water that was connected to La Duke Hot Spring would be available on the church's property in a more convenient place of use, that place of use being the church's headquarters, and the primary intent for the future being to utilize the water for medicinal hot spring pool and possibly for heating purposes.

Mr. LEHMAN. And for what purpose are you using the well now?

Mr. FRANCIS. The well was put to use in 1992 for use in a medicinal hot spring pool.

Mr. LEHMAN. Have you ever used it for irrigation?

Mr. FRANCIS. The irrigation use on that water was a dual use which involved the irrigation discharge of the water after the heat had already been used in the medicinal hot spring pool. It did not constitute any additional use of water from the geothermal well.

Mr. LEHMAN. How many total wells have you drilled on your land there?

Mr. FRANCIS. For geothermal or for any purpose?

Mr. LEHMAN. Well, give them all to me. Give them both.

Mr. FRANCIS. Well, we have the one geothermal well, and we probably have—I am just guessing here—maybe a dozen or so additional wells for domestic purposes.

Mr. LEHMAN. Okay. And how many of those would require certification under the compact rules?

Mr. FRANCIS. You mean as of this date?

Mr. LEHMAN. Right.

Mr. FRANCIS. The compact only applies to wells drilled after January 1, 1993. So none of those wells would have been covered by the compact, although several of those wells were subject to the permitting requirements in Montana that predated the compact.

Mr. LEHMAN. Would they require certification?

Mr. FRANCIS. Those wells that are over 35 gallons per minute, prior to enactment of this compact, required a permit from the Department of Natural Resources.

Mr. LEHMAN. And the water that you are drawing now, do you consider that a necessity? Is it necessary?

Mr. FRANCIS. We consider it to be a valuable beneficial use of water that would perform a valuable function in connection with the church's headquarters and the uses that would be enjoyed by the people who live there.

Mr. LEHMAN. But it's not a necessity? I guess the issue here is if some people think it is a necessity for Yellowstone, if there is any possibility at all that it would be damaged by the men. My question is, is there an equal value on the other side here?

Mr. FRANCIS. Well, Mr. Chairman, we wouldn't use the well and we wouldn't even consider using it if we felt that it would in any way damage or even pose even a minimal risk to Yellowstone National Park. We are basing our conclusions on balancing our need to use the water in comparison to Yellowstone Park's need to preserve its thermal features, on the U.S.G.S. report and conclusions that were issued in 1991.

Mr. LEHMAN. So you view the well as a component of your right to draw water there and as such you want to continue to do so, but you don't assert that it is absolutely necessary, and in terms of its impact on Yellowstone, you rely on your interpretation of that 1991 study. Is that correct?

Mr. FRANCIS. Yes, I would say that's correct. And I would simply add the proviso to that that we consider the use of the water to be a necessity in terms of having a medicinal hot spring pool at our headquarters, but not a life-and-death necessity if you want to rate necessity in terms of degrees of importance.

Mr. LEHMAN. Thank you.

Mr. Vento?

Mr. VENTO. Do you support the compact?

Mr. FRANCIS. Yes, sir. Chairman Vento, we have supported the compact through our involvement, which has been over the past six months or so. We have supported the enactment of this compact from the beginning.

Mr. VENTO. It's my understanding from the answers that Mr. Tweeten gave me concerning the compact that they obviously will affect any new wells and others, while grandfathered, will also be examined for their impact. So they, in essence, would be or could not be in conflict with the water rights of the National Government and the establishment of the park, which apparently even predates the existence of this hot water feature that you have been utilizing which has become the point of interest or controversy. You are aware of that?

Mr. FRANCIS. Yes, Chairman Vento. I am aware that the compact does not cede any authority to the United States to litigate any conflict that they feel would be with their reserved water right, and furthermore that the State retains authority to modify even prior water rights if they would be found to be in conflict.

Mr. VENTO. Well, that would be ideal that they would first once adjudicate in the State and do so in a way that is acceptable and not result in National Government litigation. That is the preference.

Under State law, can your rights and the hot water well be transferred or assigned?

Mr. FRANCIS. It's my understanding that under State law a water right issue by the State of Montana is fully transferrable as any other property right.

Mr. VENTO. One of the tests that we are told that is key, obviously, is the issue of whether you would retain in terms of pulling back on these rights and going back to an earlier circumstance, whether the landowner still has economically viable use of their land. What is the economics of the utilization of this hot water feature that has been the point of interest in Corwin Springs by your Church Universal and Triumphant?

Mr. FRANCIS. Well, Mr. Chairman, in terms of the economic use of that water right, we had a preliminary appraisal done on the value of the beneficial use of that hot water, which is in the range of 140 degrees Fahrenheit, by an appraiser in the State of Colorado, who is also an engineer with expertise in geothermal systems.

Mr. VENTO. Well, that is not quite my question. I am not asking if there is a value to the water. I am asking if in terms of pulling back and preventing the use of that particular feature, whether or not your land rights and property rights remain viable. In other words, how does it affect your other use of your lands?

Mr. FRANCIS. Well, I think what you are asking for here is perhaps a legal conclusion.

Mr. VENTO. I am not asking for a conclusion. Somebody else has to make that. But I am asking how do you think it affects the use of the other lands, not whether it has value intrinsically itself.

Mr. FRANCIS. I think it would diminish the value of the land upon which it is located.

Mr. VENTO. All right. Well, then you probably have some, in your view, remediation, I guess. I don't know that I agree with that or disagree with it, but I was interested in how you thought specifically, but you apparently want to keep that thought. But if you want to give the appraisal, I guess it would be useful for the record. I had stopped you from giving the appraisal, and if you want to give it for the record, it might be helpful. Please proceed.

Mr. FRANCIS. Thank you, Mr. Chairman.

This appraisal was conducted in 1992. The results were appended to testimony given to the Senate Energy and Natural Resources Committee in 1992, and the findings, to make a long story short, was he valued the use of that well at the approximate 35-gallon-per-minute rate, at approximately $380,000.

Mr. VENTO. Is that for use for medicinal purposes or for other purposes?

Mr. FRANCIS. The basis upon which he conducted that evaluation was by looking at the heat value of the water and what it would cost using an alternative form of heating, such as, I think the least expensive method that he identified in his report was through liquified petroleum gas, which is fairly inexpensive in this area. That would be the alternative cost of heating that volume of water to the same temperature in lieu of using the geothermal.

Mr. VENTO. So you are talking about heat, not medicinal. But your right is not based on heat, is it? It is not based on it, it's based on medicinal, is what you have testified to at the hearing.

Well, in any case, obviously, I think this is an issue that will have to be resolved, I am certain.

Thank you, Mr. Chairman.

Mr. LEHMAN. Mr. Williams?

Mr. WILLIAMS. Thank you, Mr. Chairman.

Mr. Francis, it's nice to see you again. I appreciate your continuing trips back here on an issue which I know is a difficult one for you.

I do want to say again in response to your correct statement that this bill does not comport with the compact. I want to say again that when I introduced this bill, the compact had not passed. We didn't know if it would. We didn't know then, although I believe we do now, that the Governor will sign it. And I made a public statement at the time of the introduction of it that I fully intended that if the compact passed and were signed, this bill would then be amended to comport with the Montana portion of that agreement; that is, with the compact. So I want to be clear about that.

You mentioned that you support the compact. Had you not drilled the wells and were relying only on the surface flow at La

Duke, which you clearly own, had you not drilled the wells, would you support the compact, which according to earlier witnesses would have eliminated the church's or anyone's opportunity to drill those wells?

Mr. FRANCIS. Well, Representative Williams, first let me say that I appreciate the fact that your bill was introduced before the compact became a reality and there was no intent on my part to indicate or to insinuate that your bill was intended to be in conflict with the compact.

In terms of our support for the compact, it's my understanding that what the compact does is establish a procedure whereby very stringent conditions must be met for an applicant to be granted a permit under State water law to appropriate geothermal water. And my understanding of the reading of the compact and the testimony that I have heard is that an applicant must show by clear and convincing evidence, which is a very high standard of proof, that the geothermal water to be appropriated does not originate from or is not hydrologically connected to the Yellowstone Park or the hydrothermal system.

Our support of the compact is based upon those provisions, and I would have to say that I think we would support the compact under either scenario, whether we had drilled a well prior to the passage of the compact or not.

Mr. WILLIAMS. Thank you.

I want to be sure that the members of the Committee and the record reflect what I believe both Mr. Francis and I are clear about from previous discussions. And that is, this legislation is not aimed at the Church Universal and Triumphant. They happen to be people, an institution which has drilled this well.

It is very clear from the history of this entire matter that this Committee and the Congress and myself have moved to prevent drilling whenever and wherever it occurred or was likely to occur. And as Mr. Francis knows, the Congress successfully passed and had signed into law a bill withdrawing an area in Idaho.

So I want to be very clear that this is not a matter of aiming at any individual or institution whatsoever.

Mr. Francis, as I recall when you testified before us previously on this bill, you mentioned that what the church believed it had a right to and in any event wanted was the surface flow emanating from La Duke Hot Springs, to which you have clear title. The legislation does not deny you the surface flow at La Duke Hot Springs. You question whether the legislation is clear enough on that point.

If you want to present us with language for our consideration to make it clearer on that point, I would be happy to consider it and it is not unlikely that I would want to include that, because it is not my intention that the surface flow which now comes from La Duke, to which you have title and which is the amount of water you said would satisfy the church. It is my intention and the intention of this bill that the church have that flow, but that you take it from where it is flowing naturally. And that is, Mr. Chairman, across the river from where their well now exists.

I am not trying to prevent the church from having the amount of water coming to the surface that the church believes it has a right to and which in your own testimony a year ago you said would satisfy your needs. You should have it. You should be able to capture the surface flow. I personally have no problem with that. Does that no longer satisfy the Church Universal and Triumphant?

Mr. FRANCIS. Well, Representative Williams, what I testified to, in my recollection, not having it before me today, was that whether the church exercised its rights from the well or the spring or both, that all that we wanted to claim a right to presently or in the future in terms of the volume of the water was the surface flow of La Duke Hot Spring.

The question that had arisen and still exists is the question of where and in what amounts that right would be exercised from, whether it would be from the spring or from the well or perhaps even from both in some amount.

As I have noted in my written testimony, there is a concern about the wording of the bill and the fact that that could impact a right to take the surface flow of the spring, and certainly we would very much appreciate the opportunity to suggest some amendments that would take care of that issue.

Mr. WILLIAMS. Well, I will appreciate receiving those, Ed, because I want to try to continue to work with you or anyone else who believes that their rights are being denied by this legislation.

Let me just, at the clear risk of duplication, Mr. Chairman, let me be very clear that my intention is that the Church Universal and Triumphant continue to have what they have said they have wanted with regard to the amount of water. And that is, they have said here today and earlier that they want the volume of water which now comes naturally from an area called La Duke Hot Spring, to which they have title.

I believe they should have that natural flow. It's theirs. I don't intend that we take it. What I object to and one of the purposes of this bill is that the Church Universal and Triumphant not be allowed to divert that flow and take it from another place rather than from the hot springs.

Mr. Francis, thanks for being with us.

Mr. FRANCIS. Thank you very much.

Mr. LEHMAN. Thank you very much.

Mr. FRANCIS. Thank you, sir.

PANEL CONSISTING OF MICHAEL D. SCOTT, NORTHERN ROCKIES REGIONAL DIRECTOR, THE WILDERNESS SOCIETY, BOZEMAN, MONTANA; ELIZABETH FAYAD, STAFF COUNSEL, NATIONAL PARKS AND CONSERVATION ASSOCIATION; AND LOUISA L. WILLCOX, PROGRAM DIRECTOR, GREATER YELLOWSTONE COALITION

Mr. LEHMAN. Let's hear from our third panel if they would come forward now. Mr. Scott, Ms. Fayad, and Ms. Willcox.

Okay. We will again insert your statements in the record and ask you to summarize.

We will begin with Mr. Scott. You may proceed.

STATEMENT OF MICHAEL D. SCOTT

Mr. SCOTT. Thank you, Chairman Lehman, Chairman Vento, and members of the Subcommittee. My name is Michael Scott. I am the Northern Rockies regional director of the Wilderness Society, based in Bozeman, Montana. I am pleased to be here today to testify on H.R. 1137. This vitally needed piece of legislation is fully supported by the Wilderness Society. We would like to commend Representative Williams for his leadership and determination on this important piece of legislation.

Certainly, Mr. Chairman, on this 24th Earth Day we should be able to muster the determination to protect the most renowned features of the world's first national park.

This legislation assures all Americans that Yellowstone's geothermal wonders—its geysers, mud pots, and hot springs—will not be altered or extinguished through geothermal development. By regulating activity adjacent to the park, the bill addresses a fundamental problem. The park is simply not big enough to ensure complete protection of the springs and aquifers that charge Old Faithful, Norris Geyser Basin, Mammoth Hot Springs, and the other 10,000 thermal features in Yellowstone.

There is real need for this legislation. As you heard earlier today, Mr. Chairman, there are already existing hot water wells drilled within the Corwin Springs KGRA. Without the protections that this measure contains, we may well be putting Yellowstone's magnificent features in jeopardy. We simply cannot afford, Mr. Chairman, to play geothermal roulette with Yellowstone.

Today I would like to cover three areas in my testimony. First, I would like to discuss just exactly what the compact does and doesn't do to protect Yellowstone's thermal features. Second, I would like to propose three additional amendments to H.R. 1137. And finally I would like to urge the Committee to seek the funding necessary to implement the compact that was described earlier today.

Mr. Chairman, there appears to be a bit of confusion about the relationship of the compact that was described by the representative from the State of Montana and Mr. Williams's legislation.

Certainly, we are in support of the compact. We are in support, as the Park Service and the State of Montana has testified earlier, in melding the compact together with Representative Williams's legislation. The compact has some very significant features attached to it. For instance, it regulates all waters—cold, warm, and hot—not just hot water, as contained in Representative Williams's bill.

The compact also uses existing regulatory agencies to enforce its provisions, and so avoids the duplication that you would engender by just having Federal control. And finally, using the existing regulatory agencies probably saves both the Federal Government and the State of Montana money.

But let's be clear, Mr. Chairman, there are a number of things the compact does not do, cannot do, to adequately protect Yellowstone's thermal features. The most obvious is, as we heard before, is that it only affects Montana. We need a piece of legislation that provides a consistent framework for regulating geothermal development around Yellowstone, not just in Montana but in Wyoming and Idaho as well.

The compact does not deal with existing uses within the controlled groundwater area in Montana. As you just heard from the previous witness, Mr. Francis, he indicated that his well, drilled on the west side of the Yellowstone River at La Duke, is not covered by this compact. If permits for the hot well were sought today, they would be denied under the terms of the compact because both on the basis of temperature and chlorides, they exceed the limits contained in the compact. That well as well as the others within the CGA should not be allowed to continue just because they were drilled before the effective date of the compact.

H.R. 1137 deals with the potential that existing hot water wells might affect Yellowstone by proposing a ban on those uses. The church has argued that such a ban constitutes a taking of its property interest. It may be that the church has a claim, although, as we have heard from Representative Williams, his intent in this legislation is not to deny the church the use of the water just to deny or just to say where that water can be used, that it would be used as the surface flows of La Duke Spring and not by virtue of extracting it from a well.

Clearly, if the church believes that it has had a property right affected by the passage of this legislation, we would urge the church to prosecute that in court. We don't see anything in this legislation that stops the church or any other property owner that feels aggrieved that a property interest might be adversely affected from going to court to change that.

Finally, it's important to note that H.R. 1137, unlike the compact, provides absolute protection for Yellowstone's geysers. There is a provision that has not been talked about yet that allows the State of Montana to withdraw from the provisions of the compact if the Federal Government does not provide the $2.3 million in funding by the end of 1995. The State felt it needed that to assure some fiscal responsibility and to assure some protections for itself, which we well understand.

But unfortunately if the United States does not appropriate the money before the end of 1995, the terms of the compact from the State's perspective may be null and void. Thus, we need a piece of legislation such as Mr. Williams has offered to give us that safety net to assure that there will be no effects on Yellowstone National Park.

As we have said, we would like to see the principles of the compact incorporated in H.R. 1137 and would like to work with this Committee in pursuing that.

Let me offer three other quick amendments that we would like to see in H.R. 1137.

First, we would like to see the same kinds of rigorous applications of standards apply in Yellowstone Park as the State of Montana and as this Committee is contemplating to apply outside of Yellowstone Park. The recent blowout of the well, an old research well in Yellowstone, and the diversion by a park maintenance crew of thermal waters that was threatening a walkway point out that we have some inconsistent applications of standards in the park that need to be remedied.

So we would propose an amendment to the bill that would require the Park Service to plug all remaining research wells to determine if the Park Service concession or other uses of subsurface waters in the park are adversely affecting thermal features and to develop a thermal features management policy to ensure that incidents like the diversion of thermal waters that occurred will not occur again.

We would also like to urge Mr. Williams to consider an amendment that would change the boundary of his moratorium area in Montana to coincide with that of the controlled groundwater area so that if in fact the compact doesn't go into effect, that we will have the same moratorium boundary as the controlled groundwater area currently defines geologic boundary.

Finally, we would urge this Committee to consider an amendment that would change the definition of geothermal waters. The definition currently contained in this bill is "waters that are 85 degrees and above." That is based on the Geothermal Steam Act, which was designed to regulate the commercial use of geothermal waters. The intent of this legislation is far different. This legislation is designed to protect Yellowstone from harm. If we are going to do that, we urge that this Committee adopt legislation that provides that rock-clad, iron-clad guarantee that the Yellowstone be protected from harm.

So, we suggest using the definition contained in the compact, which is "any water above 60 degrees and 10 parts per million of chlorides" would be covered by this piece of legislation.

Finally, as I indicated earlier, we would urge the Committee to ask the Appropriations Committees to expeditiously fund the implementation of the compact so we don't have to get into a question of whether we need the safety net that this legislation contains.

Mr. Chairman, thank you for the opportunity to testify. I would be happy to answer any questions.

[Prepared statement of Mr. Scott follows:]

THE WILDERNESS SOCIETY

TESTIMONY OF MICHAEL D. SCOTT REPRESENTING THE WILDERNESS SOCIETY ON H.R. 1137, "THE OLD FAITHFUL PROTECTION ACT OF 1993" BEFORE THE HOUSE NATURAL RESOURCES SUBCOMMITTEES ON ENERGY AND MINERAL RESOURCES AND NATIONAL PARKS, FORESTS AND PUBLIC LANDS,

APRIL 22, 1993

Chairman Lehman, Chairman Vento and members of the subcommittees, my name is Michael Scott. I am the Northern Rockies Regional Director of The Wilderness Society based in Bozeman, Montana. The Wilderness Society is a fifty-eight year old national conservation organization with 300,000 members nation-wide.

I am pleased to be here today to testify on H.R. 1137, "The Old Faithful Protection Act of 1993". This vitally needed piece of legislation is fully supported by The Society. It is identical to legislation authored last year by Rep. Williams which passed the House but failed in the Senate. We commend Rep. Williams for his leadership and determination on this important bill.

Certainly, on this 24th Earth Day, we should be able to muster the determination to protect the most renowned features of the world's first national park.

H.R. 1137 assures all Americans that Yellowstone's geothermal wonders - its geysers, mud pots and hot springs - will not be altered or extinguished through geothermal development. The bill's premise is that no hot water development should be allowed adjacent to the Park if it might pose a risk to Yellowstone's features.

By regulating activity adjacent to the Park, the bill addresses a fundamental problem. The Park is simply not big enough to ensure complete protection of the springs and aquifers that recharge Old Faithful, Norris Geyser Basin, Mammoth Hot Springs and the other 10,000 thermal areas in Yellowstone.

There is real need for this bill. There are already two hot water wells drilled adjacent to Yellowstone. Without the protections this measure contains, we may well be putting Yellowstone's magnificent features in jeopardy.

One by one, the world's geyser systems have tampered with--and ruined. Now we are down to two that are still basically untouched: Yellowstone's and one on Russia's Kamchatka Peninsula. We simply cannot afford to play geothermal roulette with Yellowstone. Yellowstone

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contains fully half of the world's geysers, a treasure too important to risk by allowing extraction of subsurface geothermal waters.

Today, I would like to focus our testimony in four areas. First, I want to describe the recently completed compact between the National

Park Service and the State of Montana, which quantifies the reserved water rights for Yellowstone National Park and its importance to H.R. 1173.

Second, I would like to discuss what the compact does, and does not do, to protect Yellowstone's hydrothermal systems and propose melding the principles contained in H.R. 1173 with those of the compact.

Third, I would like to propose three additional amendments to H.R. 1173. One would require the Park Service to better regulate uses inside Yellowstone which might adversely affect the Park's thermal features. Another changes the definition of geothermal waters. The final one proposes a different moratorium boundary in Montana.

Finally, I want to urge the Committee to seek the funding necessary to implement H.R. 1173 and the compact.

THE DRAFT NATIONAL PARK SERVICE/MONTANA RESERVED WATER RIGHTS COMPACT HELPS PROTECT YELLOWSTONE'S THERMAL FEATURES

Over the last fourteen months the Park Service and State of Montana have negotiated an historic agreement. The agreement, in the form of a compact, quantifies the federally held reserved water rights for Yellowstone and Glacier National Parks and the Big Hole Battlefield. The draft compact is currently before Montana's legislature for ratification. It also must be signed by the Secretary of the Interior before it takes effect.

Yellowstone's portion of the compact identifies regulatory mechanisms to protect the Park's hydrothermal systems. In essence, the compact draws a line around Montana's portion of Yellowstone, defining a Controlled Groundwater Area (CGA). Within the CGA the subsurface use of hot, warm and cold water is regulated to ensure that such uses established after January 1, 1993 will not affect Yellowstone's hydrothermal systems.

Hot water (over 85 degrees) produced from wells could not be used within the CGA unless the person wanting to use such water could show, beyond the shadow of a doubt, that the water was not linked to the Park. If uncertainty existed, the state would be required to deny the permit in order to protect the Park.

Warm water (between 60 and 84 degrees) could be used only if it were determined that the water was not likely to come from an aquifer linked to Yellowstone.

Cold water (less than 59 degrees) uses would be relatively unaffected by the compact. A permit would be needed for a well, and periodically a technical committee composed of geothermal scientists would review permits to insure that their cumulative impact would not harm cold-water recharge of the Park's hydrothermal systems.

The compact provisions would be regulated and enforced by Montana, using existing regulatory agencies. An advisory group of scientists, called the Technical Oversight Committee, is established to provide advice to the regulatory agencies on permitting decisions.

Montana estimates it will need a one-time federal appropriation of $2.3 million to set up and implement the compact.

WHAT THE COMPACT DOES

The draft compact contains several important features not found in H.R. 1173.

H.R. 1173 puts off-limits to subsurface geothermal development only those waters above 85 degrees. The compact regulates all waters - cold, warm and hot. Regulating all waters provides a greater degree of assurance that Yellowstone's hydrothermal systems will not be affected by subsurface water development.

The compact uses Montana's existing regulatory agencies to enforce its provisions. H.R. 1173 requires the Secretary of the Interior to enforce its provisions.

Using existing regulatory agencies is probably less expensive. It also may be more effective since people are used to reporting to state agencies on water development, but have no such history with the Park Service.

WHAT THE COMPACT DOES NOT DO

While the draft compact contains some distinctly positive aspects, which will benefit Yellowstone, there are several significant areas not covered by the compact that are contained in H.R. 1173.

Perhaps the most obvious is that the compact affects only Montana. Yellowstone, however, lies in three states. Neither Idaho nor Wyoming has a system similar to that contained in Montana's draft compact.

H.R. 1173 would go beyond the compact by creating a consistent framework for regulating geothermal development around Yellowstone. We need federal legislation that defines a clear standard of protection for the entire boundary of the Park, not three separate systems with varying levels of protection.

The draft compact does not deal with uses within the CGA that existed prior to January 1. 1993. This is an extremely serious problem. While we understand Montana's reluctance to take on the issue, there are at least two known hot water wells within the proposed CGA. If permits for these wells were sought today, they would be denied under the terms of the compact. These wells should not be allowed to continue merely because they were drilled before the effective date of the compact.

One of the wells, owned by the Church Universal and Triumphant was the subject of extensive USGS and Park Service analysis last Congress. Neither the USGS nor the Park Service, in reports, was able to establish conclusively that the Church's well and Yellowstone's geothermal systems are not connected. As then-Director of the Park Service Jim Ridenour stated, "If it can't be shown there are no risks, than I must assume there are." (August 12, 1991 memo from Jim Ridenour to Tom Weimer)

H.R. 1173 deals with the potential that existing hot water wells might affect Yellowstone by proposing a ban on such uses. The Church has argued that such a ban constitutes a taking of its property interest and estimates the worth of the well to be less than $500,000.

It may be that the Church has a claim. That is for the courts to determine. H.R. 1173 does nothing to prevent a party from asking a court to decide if a taking has occurred. Clearly, though, we do not want to allow uses to continue that might damage Yellowstone. If a court determines we must pay to stop such uses, than so be it. Yellowstone is too important a resource with which to play geothermal roulette.

It is significant to note that nothing in H.R. 1173 precludes the Church from using the surface flows at LaDuke Hot Spring. In fact, this has been the historical use to which the spring was put. Surface flows were piped to a resort a Corwin Springs where they were used for a pool and other purposes.

H.R. 1173 contains study provisions not found in the compact. We simply do not know enough about Yellowstone's hydrothermal systems. The bill requires the National Park Service to engage in a geophysical study of its entire boundary to better understand the hydrothermal linkages between the Park and surrounding lands.

Finally, H.R. 1173 guarantees protection for Yellowstone's geysers. A provision of the draft compact allows Montana to withdraw from the compact after 1995 if the United States does not appropriate the $2.3 million needed to implement its provisions. We all anticipate that the money will be forthcoming. But, in the unlikely event this does not occur, H.R. 1173 is needed to ensure Yellowstone will not suffer.

THE PRINCIPLES CONTAINED IN THE DRAFT COMPACT SHOULD BE INCORPORATED IN H.R. 1173

The draft compact between the Park Service and Montana contains some excellent principles. The compact defines a Controlled Groundwater Area designed to protect Yellowstone's hydrothermal features. Within the CGA, cold, warm and hot water are regulated. The compact makes use of Montana's existing regulatory structure.

These principles should be incorporated in H.R. 1173. We suggest that language be included in the bill allowing the Secretary of the Interior to certify programs, such as Montana's, designed to help protect Yellowstone's features. If a state chooses not to participate in Yellowstone's protection, the provisions of H.R. 1173 would be implemented by the Secretary.

The bill should contain specific standards by which the Secretary judges a state program to determine if it should be certified. Uniform standards ensure uniform protection in the states around Yellowstone.

The amendment should also require the Secretary to periodically review state programs to assure compliance with federal standards.

Finally, the bill should authorize the Secretary to provide funding to implement state programs.

This amendment continues the assurance Rep. Williams has worked so hard to provide, namely that we take no chance with Yellowstone's geysers. It also rewards a state like Montana that is willing to share in the responsibility of protecting Yellowstone.

H.R. 1173 SHOULD BE AMENDED TO INCLUDE A PROVISION REQUIRING THE PARK SERVICE TO DETERMINE THE IMPACTS OF ITS' ACTIVITIES WITHIN YELLOWSTONE ON THE PARK'S THERMAL FEATURES

While it is imperative that we take steps to protect the geysers and other features outside the park, we cannot overlook threats posed within park borders. Two recent events, the blow-out of an old geothermal research well in Yellowstone and the diverting of geothermal waters by a Park maintenance crew, graphically illustrate this need.

We recommend that the committees amend H.R. 1173 to include a provision directing the Park Service to 1) plug all remaining capped research wells within the Park; 2) determine if existing National Park Service, concession or other uses of subsurface waters or the location of structures affects any Park thermal feature; and, 3) develop a thermal features management policy to ensure that incidents like the diversion of thermal waters will not occur again.

H.R. 1173 SHOULD BE AMENDED TO USE THE CONTROLLED GROUNDWATER AREA BOUNDARY WITHIN MONTANA

The boundary for the CGA in Montana was determined by an advisory panel of scientists. The line defining the boundary follows roughly the edge of the Madison Formation, a geologic strata which scientists believe is responsible for much of the recharge of Yellowstone's hydrothermal systems.

This is a logical and scientifically defensible boundary. Therefore, we recommend the fifteen-mile boundary moratorium proposal used for Montana's portion of Yellowstone in H.R. 1173 be amended by substituting the CGA boundary.

H.R. 1173 SHOULD BE AMENDED TO DEFINE GEOTHERMAL WATERS AS WATERS ABOVE 60 DEGREES FAHRENHEIT AND CONTAINING MORE THAN 10 MILLIGRAMS/LITER OF CHLORIDES

H.R. 1173 currently uses a definition of geothermal waters taken from the Geothermal Steam Act. The Act defines geothermal waters as any over 85 degrees.

This definition was designed to fit the purposes of the Steam Act, namely to regulate the commercial use of geothermal steam and energy. H.R. 1173 has a decidedly different purpose. It is designed to protect Yellowstone's hydrothermal systems.

The draft National Park Service/Montana compact uses a definition of geothermal waters much more consistent with protection of Yellowstone. It presumes that waters above 60 degrees, the ambient background temperature of groundwater, and above 10 milligrams/liter of chloride are hydrothermal. H.R. 1173 should adopt the same definition.

THE COMMITTEES SHOULD URGE THE APPROPRIATIONS COMMITTEE TO FUND IMPLEMENTION OF THE DRAFT COMPACT.

Assuming the Montana legislature ratifies the compact and the Secretary signs it, the state will need a one-time $2.3 million appropriation to implement its provisions. We urge the committees to ask that the necessary monies be included in the FY 94 Interior appropriations bill. Quick funding will ensure that the compact is fully operative as soon as possible.

CONCLUSION

H.R. 1173 is vitally needed. It would protect Yellowstone's thermal wonders by preventing any subsurface geothermal development adjacent to the Park that might jeopardize them.

Amending H.R. 1173 to include the principles contained in the draft Park Service/Montana compact and the direction to the Park Service to better regulate in-park activities would strengthen the bill to provide world-class protection for a world-class park.

Thank you for the opportunity to testify. I would be happy to answer questions.

Mr. LEHMAN. Thank you.
Ms. Fayad?

STATEMENT OF ELIZABETH FAYAD

Ms. FAYAD. My name is Libby Fayad, and I am here representing the National Parks and Conservation Association.

I just want to make one general point. The bill died last year because of the takings issue. Takings law did not change as a result of recent Supreme Court decisions. Taking, it is still a taking if the action does not advance a legitimate State interest or denies a property owner all viable use of his or her property.

What is contemplated by H.R. 1137 is more in the nature of regulating, not taking. When the Clean Air Act passed two years ago, Congress required many industrial sources to spend hundreds of millions of dollars to comply with the Clean Air Act. If this bill results in some additional expenses for any property owner to comply with it, it is more in the nature of regulation than in taking.

I would hate to see this bill get bogged down again, and I also would hate to establish the precedent where a national park unit is concerned and it is being threatened by an activity outside the boundaries of the park, that the Congress is going to figure out exactly who might have a case against the United States Government and assign a value to that and delay passage of the bill while all this is discussed by everybody and their brother.

So I hope you move quickly to enact or pass H.R. 1137 with the amendments that have been suggested by the Wilderness Society and others and put this taking issue to rest.

Thank you.

[Prepared statement of Ms. Fayad follows:]

National Parks

TESTIMONY PRESENTED BY
ELIZABETH FAYAD
STAFF COUNSEL
NATIONAL PARKS AND CONSERVATION ASSOCIATION

BEFORE THE
HOUSE SUBCOMMITTEE ON
NATIONAL PARKS, PUBLIC LANDS AND FORESTS

ON THE
OLD FAITHFUL PROTECTION ACT OF 1993
APRIL 22, 1993

Mr. Chairman and members of the subcommittee, my name is Elizabeth Fayad. I am staff counsel for the National Parks and Conservation Association (NPCA), a nonprofit citizens' organization dedicated to the protection and enhancement of the nation's National Park System.

On behalf of NPCA's 350,000 members, I recommend the swift passage of the Old Faithful Protection Act, H.R. 1137.

Yellowstone National Park (YNP), the world's first national park, was established in 1872. The park's 2.2 million acres contain the world's greatest geyser area. Other thermal features of breathtaking beauty and mystery dot the landscape of this Biosphere Reserve and World Heritage Site. The preservation of the natural wonders of Yellowstone National Park for the inspiration of future generations should be an essential mission of the federal government.

PROVISIONS OF H.R. 1137

The purpose of H.R. 1137 is to protect the thermal features of Yellowstone National Park from geothermal development that takes place outside the park. The bill is necessary because some geothermal development has already occurred on lands immediately adjacent to the park, which are owned by the Church Universal and Triumphant. Potential exists for more development in the Corwin Springs Known Geothermal Resource Area (KGRA) and other areas adjacent to the park.

H.R. 1137 prohibits the development and use of subsurface geothermal resources within the Corwin Springs KGRA because such use creates substantial risk of adverse effects on significant thermal features in Yellowstone National Park. The prohibition would apply to both privately and publicly held lands.

Those risks have been identified by two federal agencies. The U.S. Geological Survey (USGS) in its Water-Resources Investigations Report 91-4052, ("Effects of Potential Geothermal Development in the Corwin Springs Known Geothermal Resources Area, Montana, on the Thermal Features of Yellowstone National Park"), concludes that there could be flow paths between Mammoth Hot Springs and La Duke Hot Spring. The National Park Service (NPS) "Corwin Springs Geothermal Resource Area Impact Analysis: Report to Congress" (August 1991) concludes that "there is no evidence of a geologic barrier between the thermal resources of YNP and the KGRA," and that "there is evidence of geothermal fluid movement between YNP and the KGRA," NPS report, p.8.

The NPS report makes other points that provide a strong scientific basis for the ban on subsurface geothermal development in the Corwin Springs KGRA contemplated under section 2 of H.R. 1137. The NPS report correctly points out that under the Geothermal Steam Act, all of the geothermal features of Yellowstone National Park are considered significant. The geothermal features of the park include aquifers, seeps, geothermally heated soils, and underwater springs in addition to the more dramatic surface features. Ample scientific evidence exists of connections between the geothermal aquifers in parts of the KGRA and Yellowstone National Park.

H.R. 1137 also temporarily prohibits the Secretary of the Interior from issuing leases under the Geothermal Steam Act, 30 U.S.C. 1001, et sec., for lands within a 15-mile radius of the Yellowstone National Park boundary. The ban prohibiting geothermal development in the Island Park KGRA and the Corwin Springs KGRA would remain permanent.

The bill requires the National Park Service, in consultation with the U.S. Geological Survey and the Forest Service, to study the impact of potential geothermal development on the thermal features of Yellowstone National Park and report to Congress on the results within four years of the enactment of the law. The National Park Service should be the lead federal agency in this study. It is important that an agency dedicated to preservation of park resources, rather than one interested in resource development, be required to conduct the study.

TAKINGS ISSUES

H.R. 1137 is identical to H.R. 3359, which the House passed in the 102nd Congress. H.R. 3359 did not pass the Senate before Congress ended. The bill was bogged down in a discussion of property rights--specifically the asserted right of the Church Universal and Triumphant to use a geothermal well it had drilled on its Royal Teton Ranch.

There are some legal issues concerning the wells drilled by the Church and the Church's water rights. However, even if the Church Universal and Triumphant has a legal right to the hot water at La Duke Hot Springs, it is doubtful that the actions contemplated by H.R. 1137 would constitute a taking. The Supreme Court of the United States has found that a taking occurs when a government action denies the property owner all viable use of his or her property, or the governmental action does not substantially advance a legitimate government interest. Conversely, a taking does not occur when the action furthers a legitimate state interest and does not deny the owner all economically viable use of the property.

It is the responsibility of the federal government to ensure the protection of units of the National Park System and their resources. The parks were set aside as a permanent investment for future generations. Protection of the resources of a national park, including the protection of the thermal features of Yellowstone National Park, is a legitimate goal of the federal government. As members of the Committee pointed out when this bill was before it in the last Congress, the protection of these resources is just as important as providing clean air and clean water. Indeed, no one has argued that the protection of the thermal features of Yellowstone is not a legitimate federal objective.

Those promoting the idea that the geothermal development ban in H.R. 1137 results in the taking of Church Universal and Triumphant's property rights, and that the Church should receive taxpayer funds for this taking, argue that the ban on subsurface development of geothermal resources in the Corwin Springs KGRA is too restrictive. They contend that the Church should be allowed to use its well because the USGS study found that fluid production from this particular well poses no discernible risk of decreasing water discharge levels from the park's thermal springs.

Based on scientific evidence and the NPS report and recommendation, it is reasonable for Congress to find that there is substantial risk to the geothermal resources of Yellowstone National Park and that a cautious approach to use of geothermal resources in the Corwin Springs KGRA is therefore justified. A cautious approach is also justified by the historic fact that geothermal development has wrecked most of the other geyser sites in the world. Once geysers are destroyed, they are destroyed forever. There is no human ability to start them back up again.

H.R. 1137 would not deprive the Church Universal and Triumphant of other beneficial uses of its land. The ranch could still be used for ranching and farming and other Church activities as it has been in the past. The bill would not even prohibit all the use of the water at La Duke Hot Springs. The bill would still allow the Church to use the natural surface flow of La Duke Hot Springs to heat its swimming pool or for other purposes of its choosing. There is, therefore, no compensable taking.

H.R.1137 is similar to other environmental statutes that place additional requirements on citizens in order to protect the environment. The fact that those requirements may cost citizens money does not mean that parties can assert a taking to require the federal government to reimburse them.

The United States Court of Claims is the appropriate forum for the ultimate resolution of a takings claim if the Church wants to file one. NPCA recommends that Congress not set the precedent that limitations on some uses of private property in order to protect the resources of the National Park System constitutes a taking worthy of compensation under the Fifth Amendment to the United States Constitution.

ADDITIONAL THREATS TO YELLOWSTONE NATIONAL PARK

Yellowstone National Park is facing many other threats to its water resources from activities outside of the park's boundaries. In its recently released report, "Park Waters in Peril," NPCA outlined the following additional threats to the park's water resources:

- Oil and gas development that could disrupt hydrologic features that may be essential to maintaining geothermal pressures.

- A mill tailings pile has polluted Soda Butte Creek which flows into the park.

- Other abandoned and unreclaimed mine sites that leach heavy metals and chemicals into waters in the Greater Yellowstone Ecosystem and affect migratory species like the cutthroat trout.

- Increased development in the area of the park increases the potential for accidental pollution or sewage discharge.

- Fuel leaks and human waste from recreational boat use pollute Yellowstone Lake.

I would like to submit the Yellowstone case study from the NPCA report for the record. The case study shows that the primary obstacles to protecting Yellowstone's water resources are inadequate legal protection against damage to geothermal features from geothermal or oil and gas development on adjacent lands, and inadequate control of surface or groundwater pollution from both current and abandoned mining activities.

The study also illustrates the need for Congress to address park waters protection in a more consistent and comprehensive way. For example, legislation to reauthorize the Clean Water Act and to reform the 1872 Mining Act should include provisions that specifically protect national park waters from degradation.

Thank you for the opportunity to express NPCA's strong support for H.R. 1137.

Mr. LEHMAN. Thank you very much.

Ms. Willcox?

STATEMENT OF LOUISA L. WILLCOX

Ms. WILLCOX. Chairman Lehman, Chairman Vento, Congressman Williams, I appreciate the opportunity to submit the following comments on behalf of the Greater Yellowstone Coalition on H.R. 1137, the Old Faithful Protection Act. My name is Louisa Willcox, and I am program director of the Greater Yellowstone Coalition, a conservation coalition based in Bozeman, Montana, comprised of 90 national, regional, and local organizations and 4,500 individuals committed to preserving the integrity of the Greater Yellowstone ecosystem, one of the last remaining intact ecosystems in the continental United States.

We are here today to support H.R. 1137 and Congressman Williams's efforts to keep Old Faithful and the other 199 geysers in Yellowstone faithful. And we would like to offer in addition to our own statement a statement by one of our member organizations of the coalition, the Upper Yellowstone Defense Fund, who could not be here today. They are based in Gardner, Montana, and are very concerned about this issue as well.

It is our position that any activity that might interfere or modify the natural plumbing of any geothermal feature in Yellowstone Park is unacceptable, whether it be warm or hot water underground, pumping and development outside the park, excessive cold water development, oil and gas development, or even careless actions on the part of the Park Service inside Yellowstone.

On Earth Day, it is fitting, I think, to take a step back and reflect upon the special set of factors within the Earth that come together to create geysers and upon the fact that in the last 30 years, eight of the ten major geyser systems that once existed around the world have been silenced or are permanently altered.

First, and it hasn't really been said today but I know there have been other science experts on these panels, but I wanted to remind the Subcommittees that there are four important factors that come together to create the very special arrangement that enables geysers to happen. You have a heat flow close to the Earth, you have abundant source of groundwater, you have an underground reservoir for storing the water, and then you have very particular geologic structures and constrictions which allow pressure to build underground that is then released with a splash of spray and steam and the like.

Congressman Williams earlier talked about dead geyser stories, and I would like to be indulged in two. They will be very brief. But I was going back through the literature on the stories of geysers around the world, and I wanted to remind the Subcommittees of what happened in Nevada at Beowawe about 25 years ago. This used to be the second only to Yellowstone in terms of geyser activity in North America, and with the drilling of four exploratory wells, all of these geysers were silenced and are no longer. Let us hope that doesn't happen to Yellowstone.

I also wanted to mention that the other major geyser system in the world that has been primarily unaltered and undamaged in Kamchatka, Russia, happened to be a place that I went on my honeymoon last fall, and I visited their geothermal power station. And on the back page of my prepared testimony is a page of photographs. They are sort of a Jules Verne-type photograph of a power station that is in Russia. And a mud pot that a geothermal expert who was with us, Irving Freedman of the U.S. Geological Survey, said was most likely the remains of a geyser—it appeared to him as if it had not been inactive all that long—as they had expanded the geothermal development field in that area.

So there appeared to be at least two dead geysers in Kamchatka, and there is interest in and proposals for geothermal exploration inside two of their preserved areas in Kamchatka. So the fate of the other major geyser system is in question at this point.

I would like to offer several suggestions by way of amendments, possibly, to H.R. 1137. First, we support the KGA, controlled groundwater areas, boundaries and the specification of recharge and discharge areas within the Montana portion. That is a very well-thought-out scheme. It reflects what is scientifically under the ground.

We also support the proposed breakdown of temperature ranges, the three temperature ranges, where different monitoring and different standards would apply. And we recommend that that arrangement be applied elsewhere in Greater Yellowstone, to Idaho and Wyoming.

We recommend that Congressman Williams and the Subcommittees go forward with those sections of the bill, as they are written, relating to preventing underground hot water development within the Corwin Springs KGRA, and that would prevent any untoward activities happening at the three existing hot water wells that lie in the Corwin Springs KGRA.

We also support the section of H.R. 1137 that applies to the moratorium on private and State lands within Idaho and Wyoming at a 15-mile radius around Yellowstone Park and also including the Island Park KGRA, which actually extends about 30 miles west of Yellowstone Park.

We support the provision of the bill to go forward with a study and analysis of geothermal relationships in Wyoming and Idaho and make recommendations to Congress about what actions might be needed after such a study.

And we want to point out—it was mentioned earlier or actually Congressman Hinchey asked a question about the Island Park area and why this bill is needed in Idaho and Wyoming—there are 28,000 acres of non-Federal ground that have not been withdrawn that lie within the Island Park Known Geothermal Resource Area. No one has come forward to develop these lands yet, but they are vulnerable to development. And they also most of them have lease applications, geothermal lease applications, at the time that there was interest in developing geothermal resources within our Island Park. So it could be done again, and we believe that at least a study ought to take place now and some recommendations be made to Congress about what scientifically is linked to Yellowstone and size of what area may need to be protected.

Finally, since it has been shown, at least by one researcher, that there is a potential for a risk to Yellowstone from oil and gas drilling and development, that we recommend that oil and gas leasing on Federal land be prohibited outside the park within the area where geothermal protections will be applied by H.R. 1137, the areas within the CGA boundaries in Montana and the provisional boundaries that will be applied in Idaho and Wyoming.

We then appreciate the opportunity to present our views here today. We would be happy to answer any questions. We thank Congressman Williams again for his persistence on this difficult but critical issue and look forward to working together to ensure that Yellowstone gets the iron-clad, copper-riveted protection that it greatly deserves. Thank you.

[Prepared statement of Ms. Willcox and attachments follow:]

Greater Yellowstone Coalition

STATEMENT OF

LOUISA L. WILLCOX

PROGRAM DIRECTOR

FOR THE

GREATER YELLOWSTONE COALITION

BEFORE THE

SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

AND THE

SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

OF THE

COMMITTEE ON NATURAL RESOURCES, HOUSE OF REPRESENTATIVES

ON

APRIL 22, 1993

P.O. Box 1874 • Bozeman, Montana 59771 • (406) 586-1593 • FAX (406) 586-0851

Chairman Lehman, Chairman Vento and members of the Subcommittees, I appreciate the opportunity to submit the following comments on behalf of the Greater Yellowstone Coalition (GYC) on H.R.1137, the Old Faithful Protection Act. My name is Louisa Willcox, and I am Program Director of GYC, a conservation coalition based in Bozeman, Montana, comprised of approximately 90 national, regional and local organizations and 4,500 individuals committed to preserving the integrity of the Greater Yellowstone Ecosystem, one of the last remaining intact ecosystems in the continental United States. We appreciate the opportunity to submit our views on this important bill, which would shape the future of Yellowstone and its irreplaceable geothermal wonders.

Yellowstone is the largest remaining intact geyser basin in the world, and one of only two major geyser systems that have not been destroyed or damaged by geothermal development. The two hundred geysers in Yellowstone represent more than occur in the rest of the world combined, and reflect a unique combination of abundant groundwater, heat flow close to the surface of the earth, and underground geologic constrictions. The geothermal resources of the Yellowstone region are the principal feature which motivated the establishment of Yellowstone National Park, and as such are a national treasure to be safeguarded from any threat which might affect their natural functioning.

Therefore, we believe that any activity which might interfere or modify the natural plumbing of any geothermal feature or hydraulically-linked aquifer in Yellowstone Park is unacceptable. When data are lacking to formulate absolute and verifiable conclusions regarding the effect of a proposed action on any geothermal resource in Yellowstone Park, then that activity should be prohibited, whether it be proposed on federal, private or state lands. Since such conclusive data is still lacking after three years of intensive research by the U.S. Geologic Survey (USGS) and the National Parks Service (NPS) in the Corwin Springs Known Geothermal Resource Area (KGRA) and adjacent parts of Yellowstone Park, we believe that Congress should err on the side of caution and preservation of the Park's irreplaceable and fragile geysers.

We are here today to support H.R. 1137 and Congressman Williams' efforts to keep Old Faithful "Faithful." At several important times in history since Yellowstone was set aside in 1872 to protect its geysers, mudpots and fumaroles, Congress has demonstrated a clear commitment to protecting these geothermal resources for future generations, through such measures as the passage of Public Law 99-591 and the Geothermal Steam Act Amendments of 1988. Ironically, just after the National Park Service celebrated its 75th anniversary, it has become clear that Congress must again act to prevent damage of Yellowstone's geysers. The reasons are several.

First, although Yellowstone was established as the nation's first park for the purposes of protecting its geothermal features, the boundaries drawn around the park did not include all of its underground geothermal aquifers important to maintaining the integrity of its geysers. The complexities of geothermal plumbing were simply not understood in 1872 -- more than a century later, we are only beginning to learn about these natural processes that characterize the Greater Yellowstone Ecosystem. Congress must now address the problem that present policies and laws do not take this new cross-boundary information into account.

Second, last year Congress received a report from the USGS in response to its 1988 request for a thorough analysis of cross-boundary geothermal relationships inside and outside Yellowstone Park. Although Congress had called for analysis and recommendations from the "USGS, in conjunction with the National Park Service," the National Park Service report was not submitted to Congress by the Interior Secretary. We appreciate the submission of this important report at this hearing today -- a report that concludes that no underground geothermal pumping or development should occur in the Corwin Springs KGRA due to potential risk to Yellowstone's geothermal features.

Third, although the Montana Reserved Water Rights Compact Commission (RWRCC) and the National Park Service have negotiated a critical, far-reaching agreement establishing a Yellowstone Controlled Groundwater Area under provisions of the Yellowstone Compact, this agreement still would not preclude underground geothermal pumping and development by the Church Universal and Triumphant (CUT) at the site of their existing hot water well -- pumping which the Park Service has concluded would pose some risk to geothermal features inside the Park. Since the state of Montana has not addressed this fundamental issue, either in the Compact or other regulations, Congress must act to protect the public trust and prevent CUT from damaging Yellowstone's geothermal features through pumping hot water at this site.

Fourth, the states of Idaho and Wyoming do not now have in place the "copper-riveted, iron clad" regulations needed to protect a resource of such caliber. It is unclear whether the Geothermal Resource Act of Idaho could stand the test of a geothermal proposal on the lands now open to development inside the KGRA. Furthermore, Wyoming has no regulatory scheme to address geothermal development. And, neither state has adequate resources to tackle the difficult scientific challenges involved in determining geothermal relationships, or the overall perspective needed to protect a national treasure such as Yellowstone.

Background

The largest functional geothermal basin in the world lies in the Greater Yellowstone Ecosystem (GYE). More than 200 geysers and over 10,000 other thermal features are found within the GYE, more than in the rest of the world combined. Despite extensive investigation in recent years, the exact boundaries of the Yellowstone geothermal reservoir are not known with certainty. However, no one disputes the fact that the geothermal features within Yellowstone National

Park are most likely hydrologically connected to recharge areas beyond Park borders, especially to the west and north.

Known Geothermal Resource Areas (KGRAs) in the GYE outside Yellowstone Park include: the Island Park and Yellowstone KGRAs (known collectively as the Island Park Geothermal Area or IPGA) in the Targhee and Gallatin National Forests, and the Corwin Springs KGRA, which adjoins Yellowstone National Park along its northern boundary. The boundaries drawn around these KGRAs were not based in precise scientific research or a thorough understanding of geothermal relationships; rather, they reflected geothermal energy development potential, and the location of previous lease applications. These areas are shown on the attached map.

There are numerous documented accounts where geothermal development has disrupted the natural activity of surface hydrothermal features, including hot springs, geysers, fumaroles and mudpots with their associated thermophilic ecosystems (R. Hutchinson, updated report; D.E. White, 1979, USGS memorandum). A review of available literature indicates that only two of the ten major geyser systems in the world remain essentially undisturbed by geothermal development: the Kronotski Biological Reserve, Kamchatka, Russia, and Yellowstone National Park, Wyoming. Major geyser fields have been damaged or totally destroyed in New Zealand, China, Chile, Iceland, Italy, Nevada, and California. In every case, development seriously affected or destroyed outright the surface features of these areas.

In Beowawe, Nevada, of 30 geysers active in 1958, none survived even exploratory geothermal energy drilling. This is a tragic story worth repeating, involving the death of a geothermal system that was second only to Yellowstone on the North American continent for its geyser activity. In the course of drilling and test pumping four exploratory holes, a private developer permanently silenced the geysers. No power was ever generated. In the words of USGS geothermal expert Don White, "The geysers were destroyed and probably could not be revived again in many tens or even hundreds of years. Beowawe is a lesson in geothermal management that should not be forgotten."

In New Zealand, of more than 130 geysers active in 1950, only 14 still erupt, and massive disturbances due to energy development have occurred in hot springs and other surface features. Four years after the start-up of the Wairakei geothermal power plant in 1954, the Great Geyser in Geyser Thermal Valley, which ranked fifth among the major geysers of the world, became inactive. And, drilling 9-12 miles from Waiotopa, another New Zealand thermal area, interrupted geyser activity there - although these areas were thought to be hydrologically unconnected.

The stories elsewhere in the world are much the same. In Tibet, a geyser field is being destroyed by geothermal development. And, in southern Kamchatka, the only other area besides Yellowstone with unaltered erupting geysers (mostly in Kronotski Preserve), a thermal area including at least two geysers have been destroyed by geothermal development (see attached photos). In a visit there last fall, I learned that there are several proposals for geothermal exploration next to and inside Kronotski and South Kamchatka Preserves.

Several major findings emerge from a review of these developments: (1) hydrothermal surface features are very sensitive to small changes in reservoir conditions (temperature, hydrostatic pressure, flow rate, permeability and/or geochemistry) even over long distances; (2) any such disruption may be permanent and irreversible (R. Hutchinson, ibid); (3) attempts to reduce or mitigate effects of geothermal development are unreliable; (4) analysis of the functioning of geothermal systems can be inconclusive due to the limitations of the technologies involved.

In Greater Yellowstone, thermal features have thus far been spared from large-scale geothermal development. Recreational spas and developments have been constructed in several areas to take advantage of natural hot springs, but these have utilized surface water rather than below-ground aquifers.

When pressure for geothermal development has mounted in the past, Congress has boldly acted to prevent developments which could damage Yellowstone's irreplaceable geysers. In 1979, following passage of the Geothermal Steam Act of 1970 that provided for the leasing of geothermal resources, over 200 lease applications had been filed on federal lands in the Island Park Geothermal Area along with leases on roughly 28,000 acres of state and private land. The Geothermal Steam Act Amendments of 1982 authorized a ban on geothermal leasing and development in the IPGA, and required that an extensive two-year study be undertaken to determine the geothermal relationships between Island Park and areas inside Yellowstone Park. The ban on federal geothermal leasing in the IPGA remains in effect, although that study was never fully funded and key questions about these relationships remain unanswered.

In the Island Park area, these questions pertain not only to the protection of Yellowstone's geysers, but also to the maintenance of the rare trumpeter swan which winters there and the area's world-class fisheries; winter survival of the fishery in the upper Henry's Fork Basin is dependent on an ample supply of warm springs flowing out of the base of the rhyolite that border Yellowstone Park's western boundary. Flowing at 90,000 gallons per minute, Big Springs, the headwaters of the Henry's Fork, and warm springs, combined with many other thermal springs, helps keep the river ice-free through the frequent sub-zero temperatures of Island Park winters. This provides year-round habitat for wildlife and fisheries, and helps fuel the recreation-based economy of the area.

In 1986, La Duke Hot Springs, north of Yellowstone Park in the Corwin Springs KGRA, was slated for development by the Church Universal and Triumphant which drilled a well nearby, pumped it at over 400 gallons per minute (without required state permits) with the stated intent of heating buildings and developing a spa. A special provision was included in the Geothermal Steam Act Amendments of 1988 to defer all geothermal development in the Corwin Springs KGRA while the USGS, in consultation with the NPS, conducted a study to determine the relationship between thermal resources in the KGRA, including La Duke Springs, and thermal features inside Yellowstone Park. The amendments also prohibited the issuance of new geothermal leases or production from existing wells until 180 days after the report was submitted to Congress. If the study determined that geothermal development in the Corwin Springs KGRA may adversely affect the thermal features of Yellowstone National Park, the Secretary was directed to develop "recommendations regarding the acquisition of the geothermal rights necessary to protect such thermal resources and features."

Need for Congressional Action

We are here today, because the interim protection granted by the 1988 Geothermal Steam Act Amendments has expired. Even with the significant improvements provided through the establishment of a Yellowstone Controlled Groundwater Area in Montana, Congress must still address 1) the threat posed if CUT pumps and develops its existing well; 2) the potential risk remaining on 28,000 acres on unprotected state and private land within the Island Park Geothermal Area; 3) the fact that the boundaries of the Island Park KGRA have never undergone rigorous scientific study to determine if they reflect the area necessary to protect Yellowstone's geothermal resources.

It is not now important to retell the confusing drama created by the USGS study that recommended limited development of underground geothermal resources, such as that proposed by CUT, the contradictory conclusions of the National Park Service that only use of existing surface flow waters was appropriate, and the decision of then Secretary of Interior Manual Lujan to side with the USGS, and exclude the Park Service from the debate altogether. What is important is the interpretation of the data by geothermal experts within the Park Service. "As long as there exists a possibility of a connection between the geothermal resources of the KGRA and those of Yellowstone Park, risk must be assumed," according to the NPS. Also, Yellowstone Park Superintendent Bob Barbee's letter to NPS Director James Ridenour stated: "Any risk, no matter how small, to Yellowstone's geothermal resources is too much risk." Such statements make it clear that if CUT moves forward with pumping hot water at its existing well site (where it now has an established right) such activity could pose a risk to Yellowstone.

The risk to Yellowstone's geothermal resources from development on the inholdings within the Island Park Geothermal Area could also increase. Presently, the Northwest Power Planning Council is exploring options to encourage renewable energy exploration and development, including geothermal development. For example, the Council has recently urged the Bonneville Power Administration to "proceed aggressively" with pilot geothermal demonstrations. Pressure to explore opportunities for geothermal development could be applied in the IPGA adjacent to Yellowstone, where geothermal relationships are very uncertain, and where private and state lands are still vulnerable to geothermal leasing and development. This is the reason why Congress must now direct and fund the study to evaluate geothermal relationships in this area.

New State and Federal Protections in Montana: The Yellowstone Compact and Controlled Groundwater Area.

The state of Montana and the federal government have recently negotiated a Compact on the 1872 federal reserved water right for Yellowstone National Park. The negotiations are based on the recognition that in preserving the Park in 1872, Congress intended to reserve the water necessary to preserve the hydrothermal features within the Park. The Compact covers instream flow on streams that flow between Montana and the Park, and geothermal resources. The proposed settlement has been ratified by the state Legislature, and awaits the Governor's signature.

Due to the scarcity of information regarding interrelationships of hydrothermal systems within and outside the Park, and the difficulty of quantifying water necessary to preserve the hydrothermal features in the Park, the Compact Commission would establish a Controlled Groundwater Area (CGA) under existing state laws as a means of protecting the park's geothermal resources.

The boundaries of the CGA, and particular restrictions, are included in the attached map. This includes two subareas within the CGA: 1) discharge areas, (where there is a strong presumption that an elevated water temperature is due to discharge from the Park) and 2) recharge areas (where there is a chance that elevated water temperature is not related to the Park). In the discharge areas, no production of hydrothermal water would initially occur.

There would be no limitation on development of cold water (below 60 degrees), but permits would be required under existing state law for all wells, and would be provisional. Wells that produce less than 35 gpm up to 10 acre feet per year would go through an expedited permit review process. The state could modify or revoke any permit if monitoring shows that hydrothermal systems for which a restriction applies are being affected.

The Compact would establish a technical advisory committee to review the boundaries of the CGA, restrictions on groundwater development, cumulative impacts, and new scientific information. The five-member committee would include representatives of the National Park Service, the USGS, the state University System, the state Department of Natural Resources, and a fifth member to be appointed by the other four. An inventory of existing wells would take place immediately. The intent is to obtain federal funding for the initial inventory, establishing and administering the CGA, and necessary monitoring activities.

Public Support

The Old Faithful Protection Act and the Yellowstone Compact's geothermal protection enjoy widespread public and media support, both within the Greater Yellowstone region and from far away, where many constituents of the international treasures reside. I am delighted to be able to submit to you today statements of support from constituents of our Coalition including the Henry's Fork Foundation, based in Island Park, Idaho, and the Upper Yellowstone Defense Fund in Corwin Springs, Montana, as well as a petition signed by citizens and members of the business community in Gardiner, Montana. Owners of these businesses recognize that their future and economic well-being is tied to the health of Greater Yellowstone and its magnificent geysers. So also does the Fremont County, Idaho, Commission, which passed a Comprehensive Land Use Plan in 1991 which prohibits "industrial uses that could have a negative impact on environmental quality and the attractions of the area, including the geothermal features of Yellowstone Park."

Old Faithful Protection Act and Private Property "Takings" Claims.

To date, concerns about this bill have centered primarily around the question of whether the legislation involves a "taking" of private property rights. After extensive hearings and analysis, the U.S. House of Representatives Mining and Natural Resources Subcommittee and the Congressional Research Service concluded that the Old Faithful Protection Act would not result in a "taking." However, under H.R. 1137, landowners would be able to challenge this interpretation in the claims courts if they wish, and receive compensation if the courts rule in their favor.

Last Congress, CUT in particular made the claim that the Old Faithful Protection Act would result in a "taking" of private property rights. There was some debate last year over whether CUT actually had a water right, since they had never put their water in the geothermal well drilled in 1986 to "beneficial use." That was the reason they pumped from their existing geothermal well for three days at the end of June/early July, thereby securing a water right from the Department of Natural Resources of 32 gallons per minute -- even though the pumping was done in violation of an agreement with the State Department of Health. Although we objected to the granting of this right, since the pumping was illegal, even if it is determined that CUT does have a water right at the well, the restrictions imposed by the Old Faithful Protection Act would be fully within the regulatory powers of government. The reason is that Congress would not prevent CUT from using the surface waters at La Duke Hot Springs, where it has a valid right.

In considering these matters, it is important to remember that no rights are absolute. For example, the U.S. Supreme Court has ruled that the right of free speech does not give one the right to yell "fire" in a crowded theater. Private property rights do not give property owners the right to drain Yellowstone geothermal aquifers. What would the affect be on Yellowstone, if all private property owners in Gardiner and Corwin Springs attempted to exercise the same rights CUT claims it has? That would certainly affect Yellowstone, but whose well would be allowed and whose disallowed? Who would get compensated and who not? What about people who claim future rights?

While owning property conveys rights to people, it also conveys responsibility. This is especially true for neighbors of Yellowstone Park. The wonders of Yellowstone are "common" property, owned by all U.S. citizens -- really everyone on earth. It is the responsibility of landowners -- and everyone else -- to ensure that Yellowstone's treasures remain for future generations. Property owners cannot be expected to be reimbursed for fulfilling their responsibility.

Regarding the issue of appropriate remedy, one should remember that for more than two centuries this country has had an established process for people who feel they should be compensated for lost property rights. The U.S. Court of claims exists for the reason. The Old Faithful Protection Act protects property owners and due process in the courts.

If CUT, or any other property owner, has a claim against the U.S. Government, they should go through the federal court system. The courts are the venue best equipped to decide if a taking has occurred and, if so, what the compensation should be. Congress is not the proper forum to decide this difficult issue.

Recommendations for HR 1137

If the Governor signs the Compact, we recommend that HR 1137 be modified to incorporate the provisions of the Compact. Of particular importance is its specification of recharge and discharge areas which will be protected and monitored; this scientifically based distinction between recharge and discharge represents an improvement over HR 1137 in terms of precisely identifying the character of groundwater movement, enabling the agencies to predict potential problems, and establish needed monitoring programs. Also important is the proposed breakdown of temperature of water into three ranges (less than 60° F, between 60° and 85° and above 85°) where different monitoring and development standards would apply; this too is a far more sophisticated approach than that taken originally in HR 1137. The Compact negotiators recognize geothermal waters as those above 60° F, and restrict geothermal development above this level due to the potential for impacts on geothermal features in the Park. ~~from pumping hot, warm and cold water~~. These definitions of geothermal water and the standards of review proposed for each makes sense, are scientifically based and should be applied on an ecosystem-wide basis, possibly through an amendment to the bill.

Since water monitoring and testing are critical to implementing these provisions of the Compact and improving the level of understanding of geothermal relationships, we strongly urge Congress to appropriate the $2.3 million necessary to establish this program. Without federal funding, implementation of these important protection measures simply will not occur. Attached is a letter submitted by GYC to the Interior Appropriations Subcommittee on this matter.

We also urge that further regulations be considered to ensure that the Park Service exercises sufficient caution regarding protection of geothermal features inside the Park. Over the past six months several disturbing incidents have occurred, including 1) excavation of travertine formations at Minerva Springs by a Park Service trail crew, 2) failure of a casing inside a geothermal well drilled by USGS near Old Faithful nearly forty years ago which temporarily created a geyser several stories high until capped, and 3) accidental bulldozing of a thermal feature during roadwork in the Park. Each of these incidents raise a question about whether or not the Park Service is exercising adequate oversight and placing the highest priority on protection of its irreplaceable geothermal wonders.

Finally we recommend that oil and gas leasing be prohibited on all federal lands outside the park where geothermal protections would be established under H.R. 1137. The reason this is necessary is that, according to USGS geothermal expert Irving Friedman, oil and gas drilling and development could have the same effect as geothermal development, by displacing underground fluids and potentially damaging the complex plumbing systems for the geothermal features.

We appreciate the opportunity to present our views here today, and we would be happy to answer any questions. We thank Congressman Williams for his persistence on this difficult but critical issue, and look forward to working together to ensure the "iron clad, copper-riveted" protection for Yellowstone that it greatly deserves.

Greater Yellowstone Coalition

March 22, 1993

Honorable Sid Yates, Chairman
House Appropriations Interior Subcommittee
B-308 Rayburn
Washington, D.C. 20515

Dear Representative Yates:

We are writing to ask your assistance in securing funding for a program that is critical to protecting the geothermal resources of Yellowstone National Park.

The state of Montana and the National Park Service are currently negotiating a reserved water rights compact for Yellowstone Park. The negotiations are complicated by the fact that the Compact strives to reserve not only the instream flows to which the federal government is legally entitled, but attempts to protect the hydrothermal resources for which the park was originally established in 1872.

The negotiators and consulting scientists acknowledge there is much that is not known about the interconnectedness of hydrothermal features within the park and groundwater in surrounding areas in Montana. The draft Yellowstone Compact proposes establishing a controlled groundwater area (CGA) outside the park; within this CGA, all geothermal and cold water development would be controlled.

The Compact proposes an initial inventory of all existing wells, and monitoring of all existing and future wells. These are very important provisions, because for the first time, we will have a mechanism for documenting and monitoring all future developments and changes in the character of the water that could be an early warning sign of potential damages occurring to the hydrothermal resources of Yellowstone Park.

The National Park Service agrees that it will receive a benefit from establishment of the CGA, and that the proposed restrictions provide national and international benefits extending beyond the boundaries of Montana. The intent of the negotiators is to obtain federal funding for these activities.

We are very concerned that allowing new developments to continue under the terms of the Compact without immediate funding to proceed with the necessary inventory and monitoring could result in unacceptable impacts on the park's hydrothermal resources. There is a very real sense of urgency because of

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extensive developments proposed by the Church Universal and Triumphant at La Duke hot springs within the CGA, and the rush of well applications within the CGA filed with the state in the last several weeks.

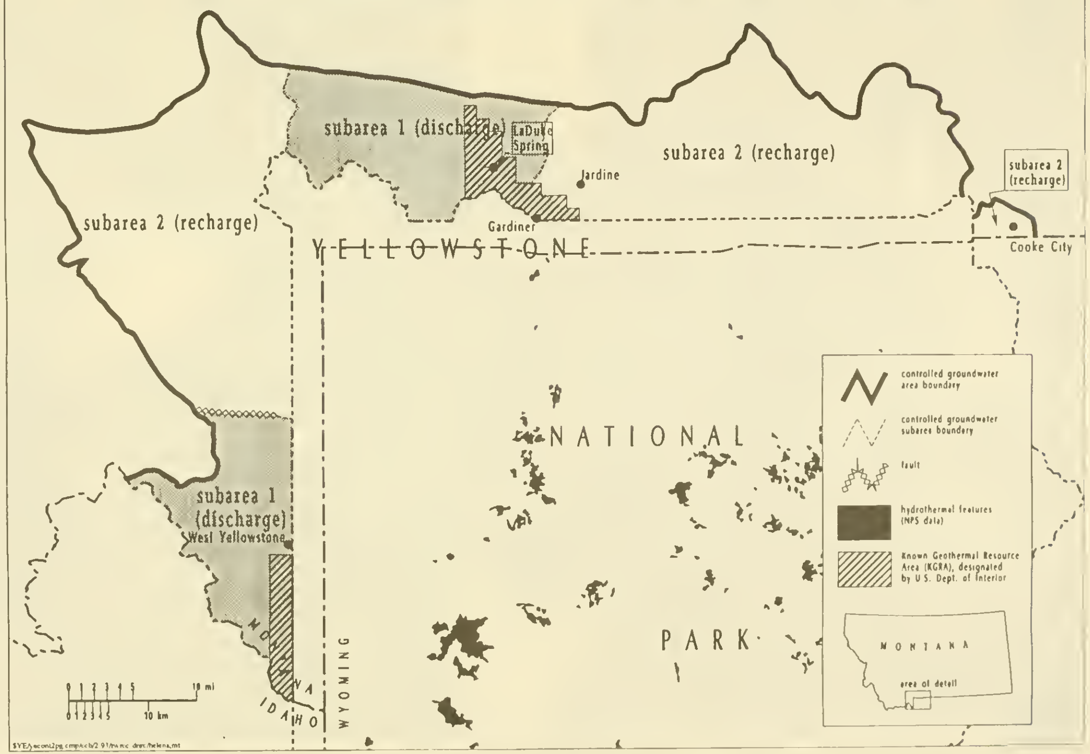
We ask that you help assure immediate funding for the National Park Service for implementation of the Yellowstone Compact in order to protect the park's hydrothermal systems. We understand that the USGS is just completing its analysis of expected costs, and complete figures should be forthcoming.

Sincerely,

Jeanne-Marie Souvigney

Jeanne-Marie Souvigney
Associate Program Director

PROPOSED CONTROLLED GROUNDWATER AREAS, Yellowstone National Park area, Montana



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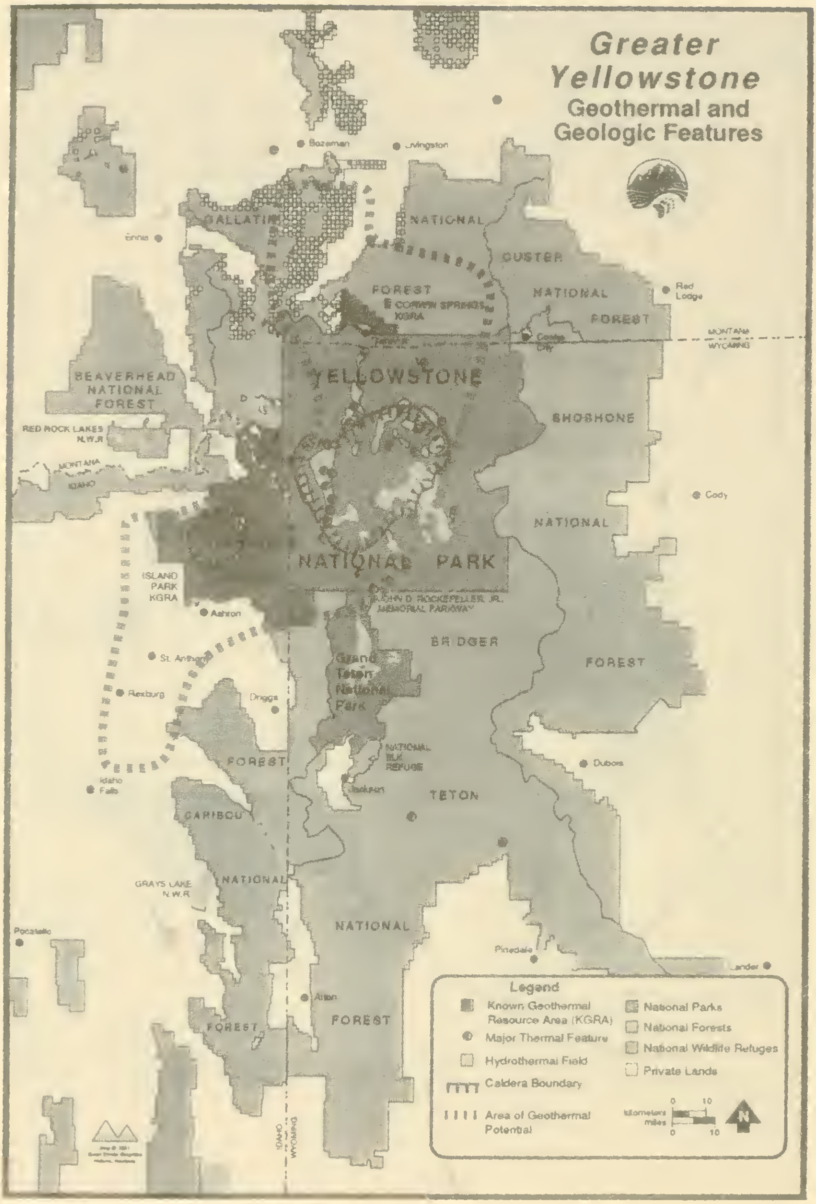
Greater Yellowstone
Geothermal and Geologic Features
Bozeman
Livingston
Ennis
GALLATIN
NATIONAL
FOREST
CORWIN SPRINGS KGRA
CUSTER
NATIONAL
FOREST
Red Lodge
MONTANA
WYOMING
Cooke City
BEAVERHEAD NATIONAL FOREST
RED ROCK LAKES N.W.R.
MONTANA
IDAHO
YELLOWSTONE
NATIONAL PARK
SHOSHONE
NATIONAL
FOREST
Cody
ISLAND PARK KGRA
Ashton
JOHN D. ROCKEFELLER, JR. MEMORIAL PARKWAY
BRIDGER
St. Anthony
Rexburg
Driggs
Grand Teton National Park
NATIONAL ELK REFUGE
Jackson
TETON
Dubois
Idaho Falls
FOREST
CARIBOU
NATIONAL
GRAYS LAKE N.W.R.
NATIONAL
FOREST
Pocatello
Pinedale
Lander
Afton
FOREST
IDAHO
WYOMING
Legend
Known Geothermal Resource Area (KGRA)
Major Thermal Feature
Hydrothermal Field
Caldera Boundary
Area of Geothermal Potential
National Parks
National Forests
National Wildlife Refuges
Private Lands
0 10
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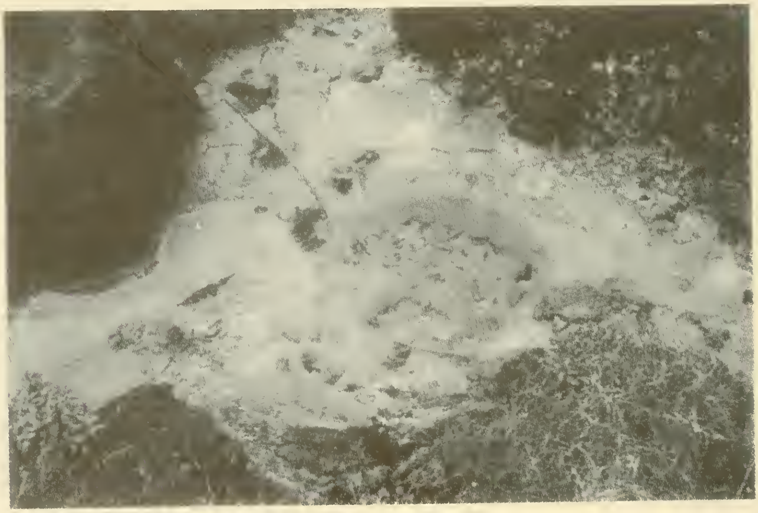
Grand Prismatic Spring, Yellowstone National Park.

The different color bands represent different algae species which flourish at specific temperature ranges in the hot water. (Photo by Sandy Nykerk).

Eruption of Old Faithful, the most famous geyser in Yellowstone National Park.

Geysers reflect a unique combination of four essential elements: a source of heat close to the earth's surface, an adequate supply of water, a reservoir, and a plumbing system in which water is stored and heated. (Photo by Sandy Nykerk).

Geothermal development near South Kamchatka preserve, Russia.
Increased interest in and proposals for geothermal exploration in Kamchatka, both inside and outside the preserve system, potentially threatens the only other geyser system in the world besides Yellowstone that has not been damaged or destroyed by geothermal development. (Photo by Irving Friedman).



This mudpot is what remains of a geyser within the developed geothermal field in South Kamchatka.
It is one of several identified by USGS geothermal expert Irving Friedman that probably was silenced as a result of geothermal development. (Photo by Irving Friedman)

Mr. LEHMAN. Thank you very much. We appreciate your testimony this afternoon.

I guess the bottom line here is that, if we are foolish and do the wrong thing or are not wise enough to be very cautious here, there is no way to mitigate the loss of this resource. It's not renewable. They can't restore it. It is just gone. You know, even when we clearcut something, at least maybe in 100 years it's going to come back naturally. Or when we destroy a fishery, there are means to restore or mitigate damages. But there is no way to do that with the loss of this resource, which is one of the central resources of the park. So I am moved by that fact.

I guess there are other threats, obviously, to Yellowstone that we are not talking about today.

Mr. Scott, in your testimony, the points you raised, one of the things you mentioned is that you think the boundaries here ought to be changed, and you state what you think they ought to be made to conform to the compact. Physically, what is the difference between those boundaries and the ones in the bill now? Could you tell us that?

Mr. SCOTT. What we would propose is for the purposes of the State of Montana.

On this map, that black line is roughly the 15-mile boundary contained in Congressman Williams's bill, and we would propose, for the purposes of the State of Montana, that we use a boundary that coincides with the drawn controlled groundwater area boundary, which would be in this boundary. And it basically follows what other earlier witnesses have testified to be the external extent of the Madison formation, limestone formation.

Mr. LEHMAN. And why is that better?

Mr. SCOTT. It was drawn based on current geologic theory, which holds that that is principally responsible for the recharge, that formation is principally responsible for the recharge of Yellowstone's thermal features. And that is roughly the outward extent of the influence of Yellowstone, and therefore that it is a scientifically defensible boundary.

Mr. LEHMAN. Okay. You also mention in your statement, you say that, "Further regulations be considered to ensure that the Park Service exercise sufficient caution regarding protection of geothermal resources inside the park." Could you elaborate a little bit more on what you mean?

Mr. SCOTT. Certainly, Mr. Chairman. As I mentioned very briefly, there are a number of existing, but capped, old research wells within Yellowstone Park, one of which last year blew out and we had an equivalent, I suppose, of a little manmade Old Faithful. And it took quite a bit of effort to cap that, a lot of money, time, and effort on the part of the Park Service.

There was also an incident where a park maintenance crew actually trenched a travertine deposit to change the flow of the travertine deposit so that it wouldn't invade a park walkway, which, had a tourist done that, it would have been considered probably some sort of malicious act and somebody would have been fined for it, at a minimum.

To us, that points out the fact that the Park Service does not have its own house in order and that it needs some direction from

Congress to assure that the park is managing its thermal features or its activities inside the park to the same high degree that we are asking people outside the park to manage the thermal waters.

So we broke down our recommendation into three parts: One, that the park be required to cap and plug all the remaining old research wells which are currently not being used, so that we won't have another blowout; secondly, that the park inventory the effects of its current activities, whether they are concession facilities or water systems the park uses inside the park, to see whether there is any adverse effect to any of the geothermal features; and finally, that the park be required to adopt some sort of a policy that would guide its employees in how they manage or, hopefully, leave alone, any of the thermal features as they change, which is what this one feature was doing, and that after all is what Yellowstone is all about, which is to show and see just how dynamic these features are and how they change over time.

Mr. LEHMAN. Another point brought out here is that in the bill, I guess, the definition that triggers the application of the act is a temperature located in the Geothermal Steam Act of 1970, for purposes of defining geothermal resources. The question here is whether or not the same definition is really applicable to protecting the park resource. Is that a fair characterization of the position?

Mr. SCOTT. That's exactly right, Mr. Chairman. What we are suggesting is that, rather than using a definition for commercial production that is contained in the Steam Act, what we do is adopt a definition that is more applicable to the protection of a natural feature like Yellowstone, which appears to be much closer to combining two aspects of the definitions in the compact that the State described, which is the hot and warm definitions.

So, in other words, we are suggesting that you use a standard that says any water temperature above 60 degrees which contains chlorides in excess of ten parts per million be the definition to define hydrothermally connected waters.

Mr. LEHMAN. Thank you.

Mr. Vento?

Mr. VENTO. I had a conversation with Congressman Williams, and we noticed in this preserve, let's see, South Kamchatka Preserve in Russia, that they had on top of here a copper-riveted, ironclad facility. [Laughter.]

Ms. FAYAD. Yes. Built in the 1950's.

Mr. VENTO. Congressman Williams assured me this was not what he was talking about. [Laughter.]

In terms of providing assurance. This is more rusty, I guess. Nor is he talking about one that has a little more stainless-steel in it, I guess.

In any case, Mr. Scott, we appreciate very much the work that you have done, and others here from the Yellowstone Coalition, the National Parks and Conservation Association, in protecting this, what I guess is considered—Mr. Lehman may argue about this—one of the first national parks.

I guess they all tried. They came in in 1860. How's that, guys? [Laughter.]

Mr. VENTO. But they were set aside as reserves, preserves, Yosemite and Yellowstone, long before my memory goes back. But my two older colleagues here may know. [Laughter.]

Sorry, guys.

But the point Mr. Scott made was the issue of the existing wells. It seems to me, when I was asking the question of Mr. Tweeten, maybe I misunderstood what he said, but I thought that the suggestion was that the grandfathered wells, whether they be hot or cold—and I think the formulation and some of the work they've done on the compact is very thoughtful, and it obviously goes beyond, and we will have to deal with those issues now in this protecting geothermal features. But I thought he said that they could go back and examine them as to their impact on the geothermal features in Yellowstone.

Mr. SCOTT. Well, I wouldn't want to comment on that.

Mr. VENTO. I didn't want you to take that. You know, I think that the record will show that that is what his answer was to my question. That is the way I understood it. Did you understand something different? I note that your testimony was prepared before the hearing, obviously.

Mr. SCOTT. Yes. I wouldn't want to characterize what Mr. Tweeten had said.

Mr. VENTO. I do, though. [Laughter.]

Mr. SCOTT. The point that we were trying to make was that if you look at the temperature and chloride content of the well owned by the Church Universal and Triumphant, that under the provisions of the compact, the church, if it were coming and applying for that well today, the church would have to prove that there were no hydrothermal connections between its well and Yellowstone Park. And the U.S.G.S. spent several hundred thousand dollars, as did the Park Service, and you had those two entities before you, Mr. Chairman, last year for, I think, four hours or longer, asking them questions. They could not tell you at that point that beyond the shadow of a doubt there were no interconnections, that all they could say was that the risks were minimal but that there were risks.

Under the terms of the compact, it is required that people are required to find under the terms of the compact that if there is risk, that a permit is denied. It is only for those temperature of wells, when you are into the higher temperatures and the chloride contents.

So, the point we were trying to make in our testimony is that just because the well was drilled before the effective date of the compact, which is January 1, 1993, doesn't necessarily make it right.

Mr. VENTO. No. Well, I agree with that. And of course you get into two questions here. I was talking about the retroactive question, and then you were talking about prospectively, depending upon temperature and so forth, how it would fit and who would have the burden of proof.

Mr. SCOTT. Well, I think one of the things that Mr. Tweeten pointed out was that there is nothing in the compact that prevents the United States from going into court to try to enforce it.

Mr. VENTO. No, but, you know, ideally we don't enter into these and spend a couple of million dollars to have the privilege of engaging in court cases. You know, obviously the idea is that it would be—and I think it will be—a method to resolve things so that it's workable. At least if it isn't, then I guess we would be very concerned about it. We want the issues to be settled.

In any case, I do think that the hearing did provide some insights for all of us, and there will be further discussion. I do appreciate the issues that you have all raised in terms of improvements and the discussion about the Idaho and Wyoming treatment and the Park Service activities within the parks. Obviously, parks are established. We obviously don't pay as much attention to this for the purposes of understanding the science and the geology here, and apparently that itself can deal with the features and be in conflict.

So I don't know what all the ramifications are of this or what the cost would be, but, clearly, it would be, once you open up something, if you get a hole in the pipe, it's like filling the basement with concrete to repair the hole in the pipe because you don't have the ability to get in there and do the work.

Incidentally, if there is someone else here from the U.S.G.S. or from the Park Service who can talk to me about the depth of alluvial soils, I would be interested in knowing that because most of the profiles we have seen, that I have seen, do not indicate that very accurately. So I would like that information.

With that, Mr. Chairman, I would yield.

Mr. LEHMAN. Thank you.

Mr. Williams?

Mr. WILLIAMS. Thank you.

My thanks to each of you for your support of this legislation and also to each of you and your organizations for your assistance over the past couple of years in developing the legislation.

There is some difference of opinion among all the panelists as to exactly what the effect of this bill would be. At the risk of further torturing this descriptive phrase I use, it does seem to me that there is also some question as to what that phrase really is.

So that there be no doubt about my full intentions, let me say it for you. It is iron-clad, copper-riveted, rock-ribbed, no-nonsense, zero-risk protection for Yellowstone National Park.

Mr. LEHMAN. Other than that, are you flexible? [Laughter.]

Mr. WILLIAMS. Absolutely. [Laughter.]

Let me, Mr. Chairman, note from Ms. Fayad's testimony the opinion of the National Park and Conservation Association with regard to taking.

Before reading these several sentences into the record, I want again to make clear that it is not the intention of this legislation to deny the Church Universal and Triumphant from the surface flow at La Duke Hot Springs, to which they have clear title. We do not take that. If we need to make it clearer in the bill, as I said to Mr. Francis, I am willing to do that.

But I think that the testimony of the National Park and Conservation Association goes to what would happen even if the bill did take it, even if the bill went beyond the intention of its author.

Here is what the Association says:

There are some legal issues concerning the wells drilled by the church and the church's water rights. However, even if the Church Universal and Triumphant has a legal right to the hot water at La Duke Hot Springs, it is doubtful that the actions contemplated by H.R. 1137 would constitute a taking.

The Supreme Court of the United States has found that a taking occurs when a government action denies the property owner all viable use of his or her property or the governmental action does not substantially advance a legitimate government interest. Conversely, a taking does not occur when the action furthers a legitimate State interest and does not deny the owner all economical viable use of the property.

Now, the Association may or may not be addressing the issue there if we took the La Duke Hot Springs. It is not our intention to take the water at La Duke Hot Springs. But it clearly is in the public and, therefore, the State's best interest to do all we can to protect Yellowstone.

Let me ask both Mr. Scott and Ms. Willcox about this matter of the current flow at La Duke. Is it your understanding that the legislation would allow the Church Universal and Triumphant to have the current flow arising from La Duke Hot Springs? And so you support or oppose the church having that flow?

Mr. SCOTT. Congressman Williams, as you recall, last year when we testified before this Committee, we indicated, as we did this year, that we see nothing in the legislation to deny the church the use of the surface flows at La Duke. We were supportive of that last year, and we continue to be supportive of that this year.

There was quite a bit of discussion last year about how one would accomplish the task of getting the flows from the east side of the river over to the west side of the river where the church would like to use it. We had discussions with Mr. Francis after the hearings where we talked to him about the prospects of putting a pipeline under the river to put the flows across and that in concept we saw nothing wrong with doing that. I always assumed that it was consistent with the correct way of doing that.

So, no, we don't see anything in the legislation, we don't see any reason why the church should be denied the surface flows.

Mr. WILLIAMS. Ms. Willcox, does the Greater Yellowstone Coalition have a view of this?

Ms. WILLCOX. Yes. And we supported over a year ago in this hearing room, I believe, on a hearing on the Old Faithful Protection Act then, that the church should be allowed to use the surface flow at La Duke, where it has a very senior right.

And I did not know that that was a matter of concern or contention until this morning in the Church Universal and Triumphant's testimony when they raised that concern. It has simply not been an issue with any of us.

Mr. WILLIAMS. Mr. Chairman, would you ask Mr. Tweeten to rejoin us at the hearing table? I have a question to ask Mr. Tweeten.

Mr. LEHMAN. Certainly.

Mr. Tweeten, why don't you come forward?

Mr. WILLIAMS. Chris, you heard Michael Scott's suggestion that if the—I believe it was Mr. Scott's suggestion—that if the funding did not come forward, it might nullify the provisions of the compact. Is that your understanding?

Mr. TWEETEN. Mr. Chairman, there are provisions in the compact that deal with the funding and what would happen if the funding did not come forward.

Mr. WILLIAMS. Are they severable? Is it severable at that point; that is, if the funding doesn't come forward, is the compact still in effect?

Mr. TWEETEN. Well, the compact is still in effect, but it gives the State the option of withholding its implementation of certain portions of the compact until the funding becomes effective. It doesn't automatically withhold, but it gives the State that option if the Federal funding doesn't come forward.

Mr. WILLIAMS. The compact at that point becomes voluntary on the part of the State.

Mr. TWEETEN. With respect to those particular provisions, I think that's right.

Mr. WILLIAMS. Are those critical provisions?

Mr. TWEETEN. I think they're very important provisions. That is why we urge Congress to provide the funding so that we can implement them fully.

Mr. WILLIAMS. Does the compact allow the State to withdraw at any time, even if you had the money?

Mr. TWEETEN. No, Mr. Chairman. The compact is binding in perpetuity and can only be modified by either party on mutual agreement.

Mr. WILLIAMS. Mr. Chairman, would Dr. Fenn also join us for one moment at the table?

Dr. Fenn, this is a new element in this with regard to the full provisions of the compact not being carried out if Congress does not appropriate the money. Is it the intention of the Department of the Interior, I assume in next year's budget, to ask for this money?

Dr. FENN. Mr. Chairman, Mr. Williams, I think that the budget, the FY '94 budget, of course is already presented to the Congress. So we are looking at FY '95 as being our first opportunity, and I think it is our intent to do everything that we can to see to it that the needed funds to implement this pact are in the request that is sent forward.

Mr. WILLIAMS. Would the Department be willing to consider, given the urgency of this and the short window time frame of '95, would the Department consider asking for this in a supplemental?

Dr. FENN. We haven't had any discussions about that, but I think that is certainly a possibility. Now that the bill has been passed by the legislature and we hope will be signed by the Governor, it will be sent to the Secretary of the Interior for his approval and to Justice for their approval. Once that Federal approval has been given, and we don't anticipate too many major problems with that, then I think that a supplemental is a very real possibility.

Mr. WILLIAMS. I assume we will need to provide authorization for this. Is that correct?

Dr. FENN. I think that is what the hope would be.

Mr. WILLIAMS. We might do that in this legislation.

Mr. VENTO. If the gentleman would yield to me. No, I would agree in this bill, but the question that I had I think really gets back to Mr. Tweeten's comment is that if there isn't Federal funds forthcoming, that certain elements of the legislation would not be implemented, would not be able to be implemented.

Then the question is in terms of the involvement of State funding. If in fact there isn't State funding, then does that same hold true? I think we are on a very slippery slope to lead again to predicate the implementation of the legislation selectively on that basis simply because there is a reliance here on funding and good-faith effort. And I would want to be very careful about that particular slope that we get on.

I understand the importance of it. We want to work in good faith. We will try to get this done. It is an important part, I think, that we have got a good measure to sell. But I am concerned about that aspect insofar as the State is a major participant and contributor in this particular process, you know. And the fungibility of the funds that the State might be putting in, I don't know that they are so isolated or identified.

But I would have to know more about the compact. But that would be a concern, and we might want to answer that for the record on the part of, I note both the representatives from the State of Montana and the Park Service are still in the room and have been at the table.

I think the bill, we might want to have a point, in terms of the legislation, to recognize the implementation of the law or the application of the law in the absence of the compact being brought about and so forth in terms of how we fit this, not to anticipate problems, but I think they have been recognized.

I thank the gentleman.

Mr. WILLIAMS. In conclusion, I want to thank again both chairmen for the haste in which you have dealt with this issue, and particularly thank you for the appropriateness of deciding to hold this hearing on Earth Day.

Let me tell you something I learned yesterday. Remember when you were a kid and you used to go to the doctor and they'd take a culture and then they'd tell you to give them a call or they'd give you a call in four or five days. They were trying to grow this thing from your throat to see what it was so that they knew how to treat it.

Today, that doesn't happen. You go in, and within a very short time, just a matter of hours, they can tell you what the problem is.

It is a very important scientific breakthrough. It's because of Yellowstone National Park. One of the things that scientists needed in order to pull off this quick growing of cultures was an enzyme that wouldn't be destroyed by heat. And after much searching, they finally found it in one of the hot pools out at Yellowstone.

These parks are scientifically more important than we know. Yellowstone National Park is a cash register for Montana, Wyoming, and Idaho. And it is of course a scenic and natural wonder to which we want to give zero-risk protection.

Thank you, Mr. Chairman.

Mr. LEHMAN. Thank you.

I thank this panel and all the witnesses today, and with that we will adjourn the hearing.

[Whereupon, at 12:45 p.m., the subcommittees were adjourned.]

APPENDIX

April 22, 1993

Additional Material Submitted for the Hearing Record

HONORABLE JAMES V.HANSEN
OPENING STATEMENT ON H.R. 1137
OLD FAITHFUL PROTECTION ACT OF 1993
APRIL 22, 1993

Mr. Chairman, I consider myself as an ardent conservationist when it comes to taking care of the great national parks of this country. Indeed, there are few, if any, states where the beautiful natural heritage of this country is better protected in the national park system than in the state of Utah.

However, it seems to me that this Committee has adopted a major new initiative of establishing unnecessary, and potentially very costly, buffer zones around park areas. I see these efforts at Lechuguilla Cave, at Bodie Bowl, in the Chairman's BLM re-authorization bill and in a number of other pieces of legislation.

What is particularly disturbing with this piece of legislation is that the bill is based on assumptions which totally contradict scientific studies carried out by the Interior Department. In 1988, Congress acted justifiably in response to concerns regarding the potential impact to unique park geothermal features by directing the USGS to study the issue. Now, just because certain interest groups disagree on an emotional basis with the USGS's scientific conclusion that certain geothermal development activities on lands outside the park can be pursued "without discernable risk" , the Committee is set to move this bill forward.

Mr. Chairman, I am disturbed by this measure not only because it is in total contravention of existing scientific data, but also because it clearly effects a taking of private property rights. It is precisely because the government has failed to establish that any geothermal development within the Corwin Springs area would have an adverse impact on Yellowstone Park geothermal features that this measure effects a taking. In several recent court cases, the courts have found that a taking has occurred when the action cannot be shown as necessary to advance some legitimate government interest. Such is clearly the case with this measure.

Mr. Chairman, I am very concerned about the direction this Committee is headed with respect to these buffer zone bills. While I support protecting parks, and I anticipate there will be numerous battles over unnecessary buffer zone bills such as this one.

MARCH 3, 1849

United States Department of the Interior

TAKE PRIDE IN AMERICA

NATIONAL PARK SERVICE
Water Resources Division
1201 Oak Ridge Drive, Suite 250
Fort Collins, Colorado 80525

IN REPLY REFER TO

TESTIMONY OF OWEN R. WILLIAMS

NATIONAL PARK SERVICE

RESERVED WATER RIGHTS COMPACT NEGOTIATION TEAM SPOKESPERSON

ON HOUSE BILL 692

April 7, 1993

Thank you for the opportunity to testify on behalf of the National Park Service (NPS) with regard to the Draft Compact between the State of Montana and the United States for reserved water rights in Big Hole National Battlefield, and Glacier and Yellowstone National Parks. To begin with, let me provide some background about myself and the Federal negotiating team. I am Owen Williams, Chief of the National Park Service's Water Rights Branch in the Water Resources Division. While located in Fort Collins Colorado, this unit is attached to the NPS's Washington Office. I served as the NPS lead in Compact negotiations and my staff, led by Chuck Pettee, provided the technical support required by the team. Richard Aldrich, who is the Field Solicitor from Billings, served as the lead from the Department of the Interior's Office of the Solicitor. The team also included three attorneys from the Department of Justice (Eric Gould, James DuBois, and Dave Gehlert.)

As you are aware, approximately fourteen months ago the State of Montana, through its Reserved Water Rights Compact Commission, and the United States, through the National Park Service, committed to a concerted effort to negotiate issues to produce a federal Reserved Water Rights Compact. Before you is the product of that effort; one in which both parties may take pride, in my opinion.

I am unable, today, to speak for anyone other than the negotiation team itself. However, the team, joined by line officers of the affected parks, has passed the draft Compact on to the responsible officers of the Department of the Interior and the Department of Justice with a strong recommendation for approval. Washington staff of these Departments have concurred and recommended approval to their principals. Approval has been recommended because, in our collective view, this agreement accomplishes several things which are of paramount importance for the protection of these three NPS units.

First, the Compact protects the water-related resource values of each park to accomplish each "reservation's purposes". It provides instream flows for fish, riparian vegetation, and recreation and it assures that the free-flowing character of the rivers and streams of Yellowstone and Glacier will continue into the future. Protected, also, will be the historical context of Big Hole National Battlefield. The generations which follow us will have the opportunity to reflect upon and be enlightened by this important memorial to the history of this great country and its people.

Second, water for the use of existing and future visitors and staff will be assured. The existing and reasonable future consumptive uses of water at these units will be quantified by the Compact and will be protected. This gives both the State and the NPS the certainty needed to respond to growth when it occurs. Also, private water rights holders will be more secure in the knowledge that their rights are no longer put at risk by an un-quantified senior Federal Reserved Right.

Third, the Compact will avoid the substantial expenditures of financial and staff resources that are associated with contentious and uncertain litigation. During times of heightened concern over governmental expenditures, this is not a trivial matter.

Fourth, while recognizing existing water uses, the Compact also makes provision for a reasonable level of future water development by the people of Montana in tributary streams. This development can occur in an unhurried and planned manner because the Compact settles the un-quantified Federal Reserved Right question and provides protection for present and future non-federal uses. Similarly, the NPS can plan with more certainty because the Compact will specify the level of future water use of the surface and ground water which is tributary to the parks.

Finally, the Controlled Groundwater Area provisions will provide critically important protection for the Yellowstone hydrothermal system. The State and the NPS will be able to work together to improve our scientific understanding of the hydrothermal system before taking actions which could imperil this internationally important resource. At the same time, the people of Montana will be able to make reasonable and careful use of the ground water that does not affect the hydrothermal system.

I want to emphasize that this agreement is sensible for all parties. It is the view of the NPS negotiators that a good litigation case with very substantial supporting data could be brought to court. It is also our view that little would be served by such a course of action. Instead, through the Compact existing private water rights will be protected. Also, future water development will be provided for in virtually all drainages while the protection required for these nationally important NPS units will be assured.

In conclusion, I would like to recommend that this body take favorable action on the NPS Compact. I would also like to reiterate the NPS's commitment to continue negotiations to settle Federal Reserved Water Rights claims at Bighorn Canyon National Recreation Area and Little Bighorn Battlefield National Monument.

NATIONAL
PARK
SERVICE

DEPARTMENT
OF THE INTERIOR

> *... to conserve the scenery and*
> *the natural and historic objects and*
> *the wild life therein and to provide*
> *for the enjoyment of the same in*
> *such manner and by such means as*
> *will leave them unimpaired for the*
> *enjoyment of future generations*

August 25, 1916
16 U.S.C. 1

BIG HOLE NATIONAL BATTLEFIELD

"...public lands...are necessary for the proper care, management, and protection of the historic landmarks included within the monument;"

Proclamation 2339
June 29, 1939
53 Stat. 2544

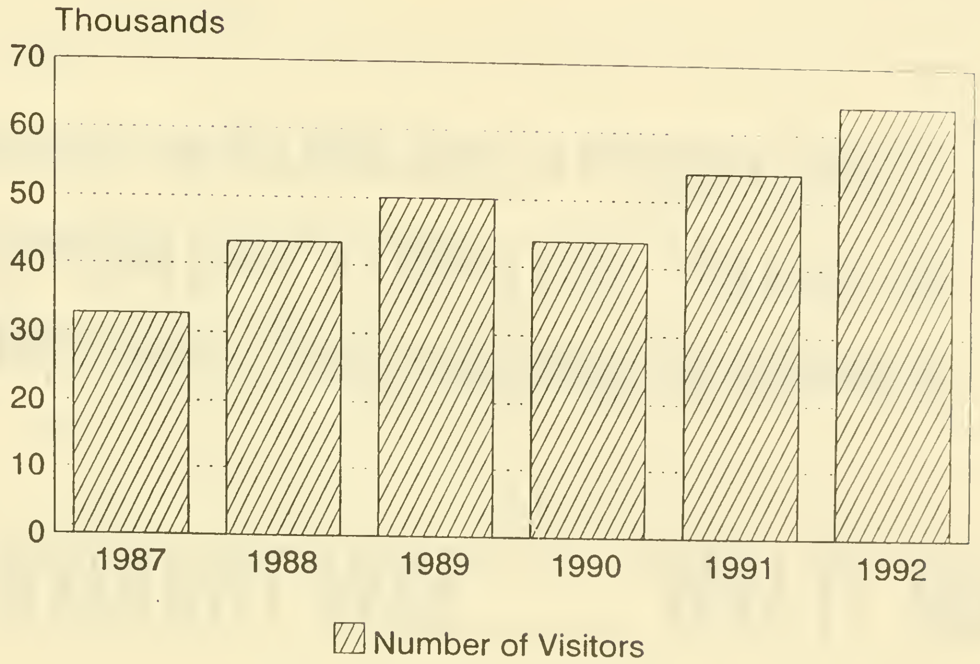
BIG HOLE NATIONAL BATTLEFIELD

In order to preserve historic features and sites associated with the Battle of the Big Hole and to facilitate their administration and interpretation,..."

77 Stat. 18
May 17, 1963

Big Hole National Battlefield

Parkwide Visitation (1987-1992)



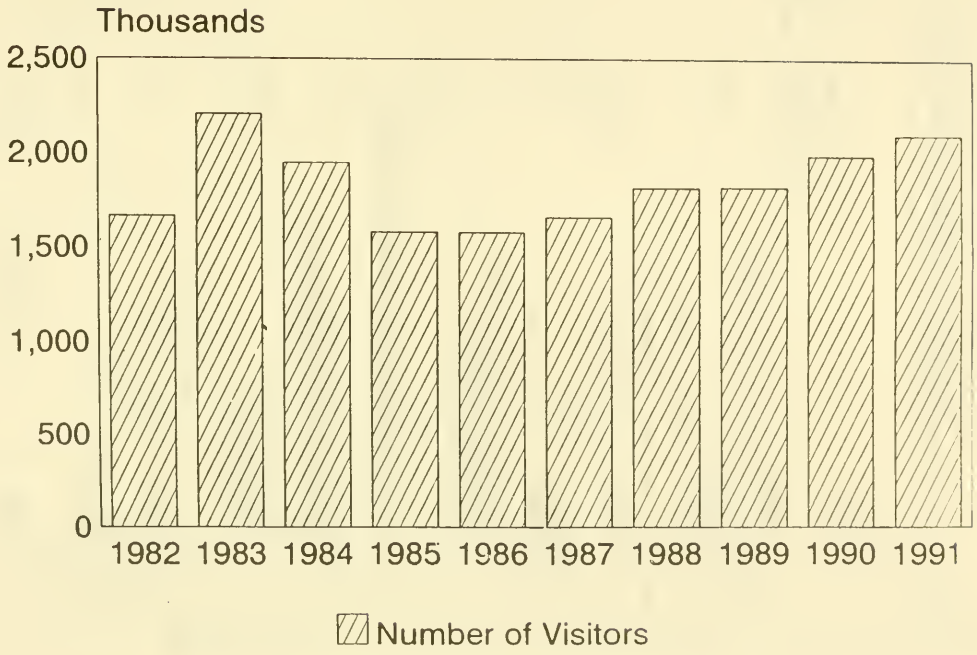
GLACIER NATIONAL PARK MAY 11, 1910

..." a public park or pleasure ground for the benefit and enjoyment of the people of the United States...in a state of nature..., and for the care and protection of the fish and game within the boundaries thereof...."

(36 Stat. 354)

GLACIER NATIONAL PARK

Parkwide Visitation (1982-1991)

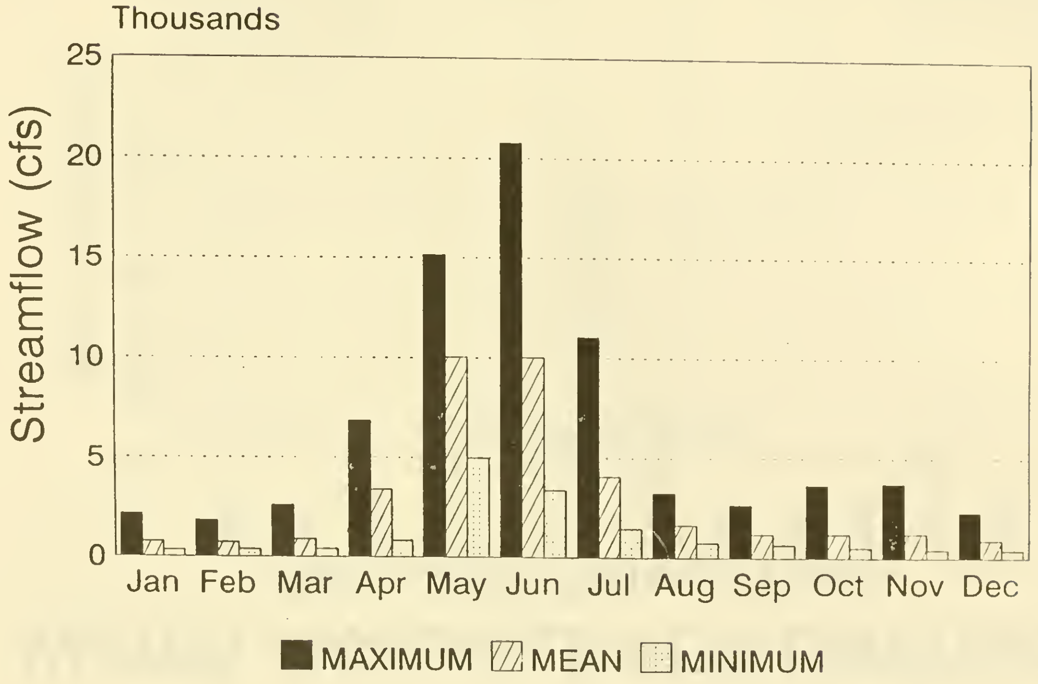


NPS Consumptive Use
Glacier National Park

	Acre-feet per Year	Gallons per Minute
NF Flathed River Basin (76LJ)		
North Fork Areas	4.70	70
Backcountry Cabins/Use	4.14	55
MF Flathead River Basin (76I)		
Mc Donald Creek Areas	246.00	1720
Middle Fork Areas	0.70	10
Backcountry Cabins/Use	4.48	55
Saint Mary River Basin (40T)		
Northern Border Areas	2.20	20
Many Glacier Area	166.40	600
Saint Mary Area Areas	128.40	915
Backcountry Cabins/Use	3.52	40
Two Medicine River Basin (41M)		
Two Medicine Areas	6.40	70
Backcountry Cabins/Use	0.57	5
Cut Bank River Basin (41L)		
Backcountry Cabins/Use	0.37	5
Milk River Basin (40F)		
Backcountry Use	0.02	
TOTAL	567.80	

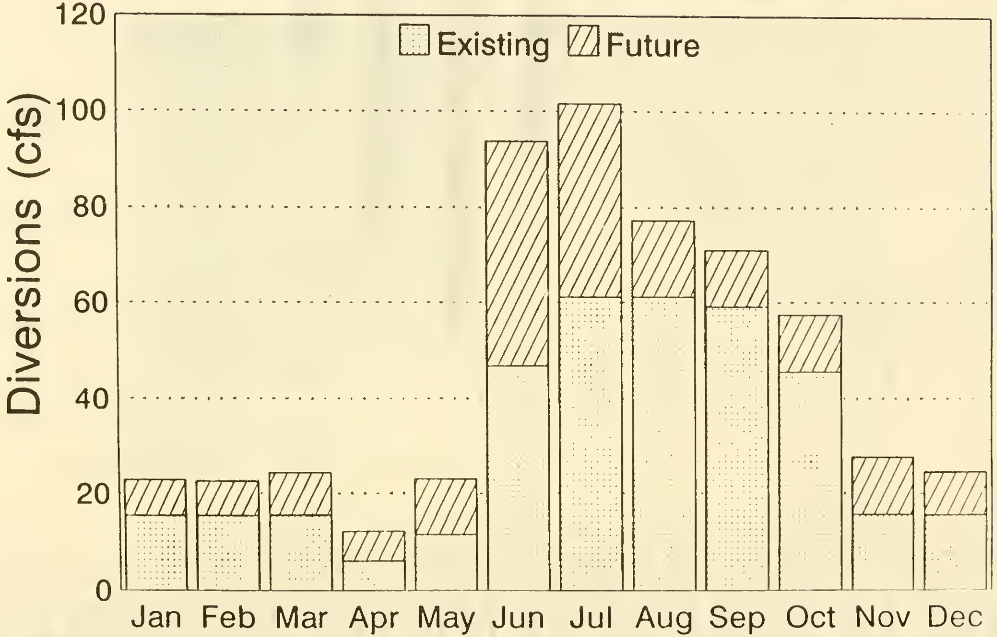
HISTORICAL MEAN MONTHLY FLOWS

N. FORK FLATHEAD RIVER NR COLUMBIA FALLS (ID # 12355500)

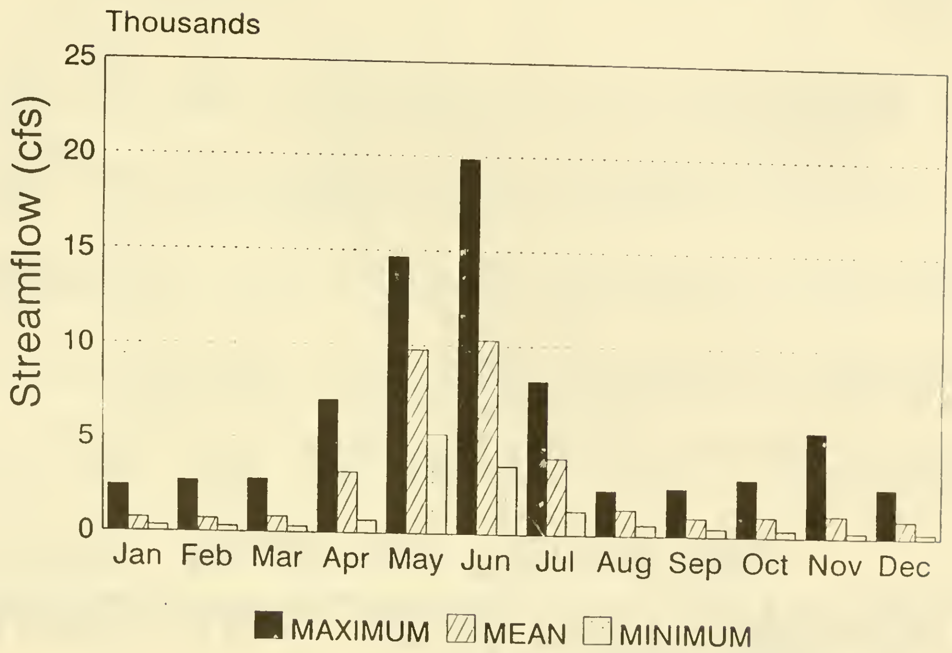


WATER AVAILABLE FOR DIVERSION

North Fork Flathead River

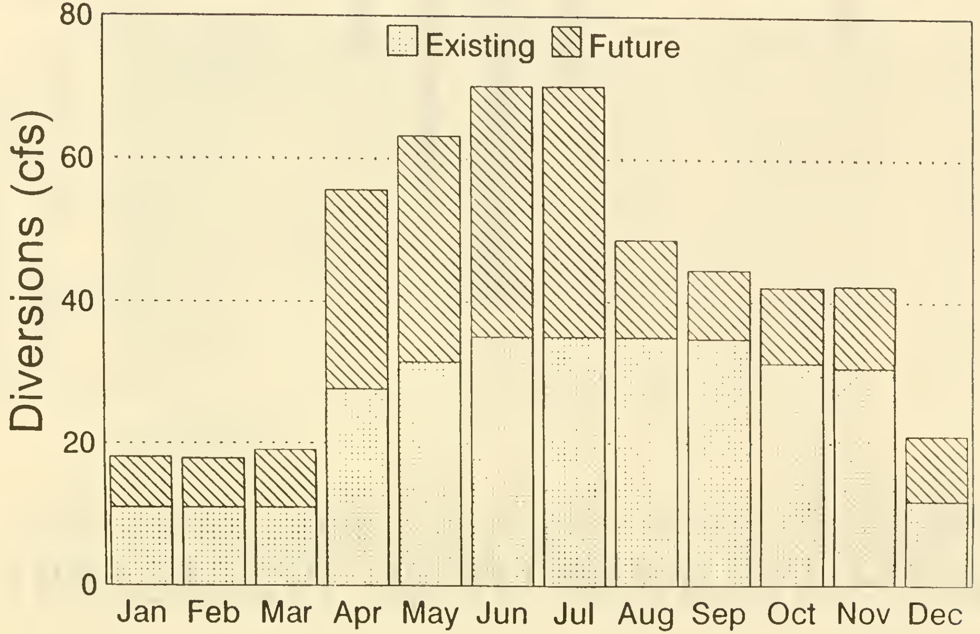


HISTORICAL MEAN MONTHLY FLOWS
MIDDLE FORK FLATHEAD RIVER NR W. GLACIER (ID #12358500)



WATER AVAILABLE FOR DIVERSION

Middle Fork Flathead River



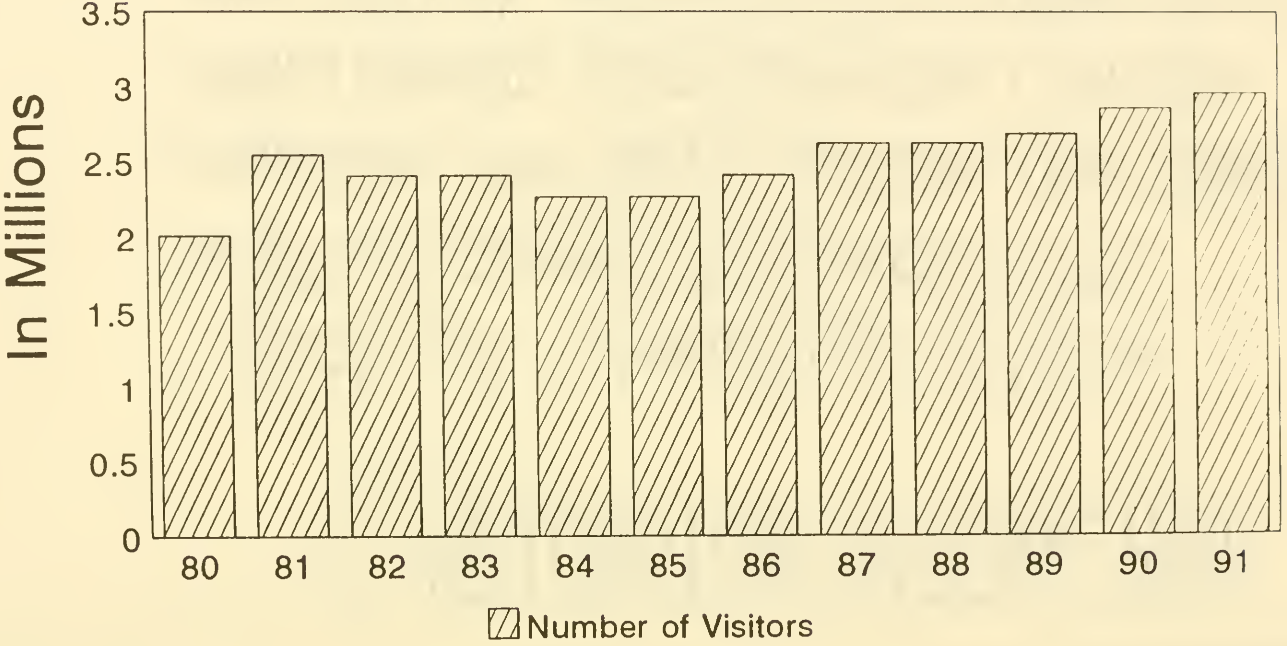
YELLOWSTONE NATIONAL PARK

"...a public park or pleasuring-ground for the benefit and enjoyment of the people...for the preservation, from injury or spoliation, of all timber, mineral deposits, natural couriosities, or wonders within said park, and their retention in their natural condition."

(17 Stat. 32)

Yellowstone National Park

Parkwide Visitation (1980-1991)

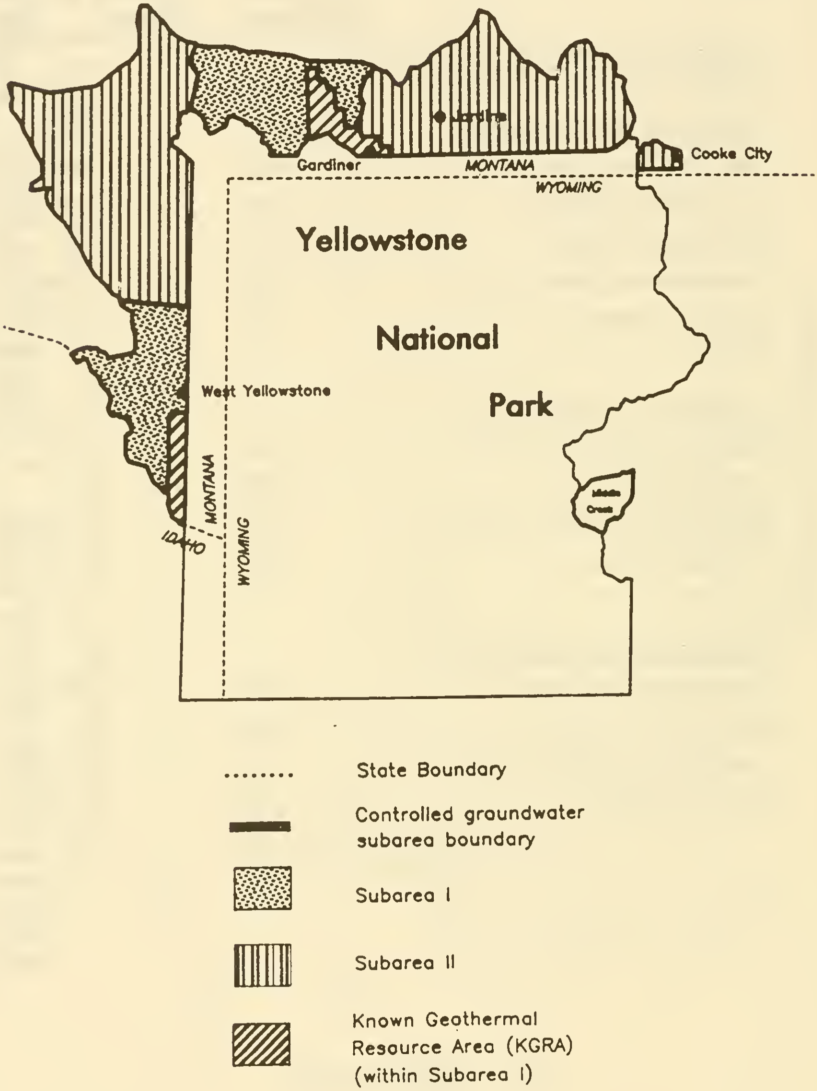


NPS Consumptive Use
Yellowstone National Park

	Acre-feet per Year	Gallons per Minute
Yellowstone River Basin (43B)		
North Entrance Area	1.70	35
Stephens Creek Facilities	12.00	50
TW Facilities (Gardner)	58.70	300
Northeast Entrance	15.60	50
Backcountry Use	10.70	
Backcountry Patrol Cabins	2.00	15
Day Use Areas	2.40	6
Gallatin River Basin (41H)		
Northwest Entrance Area	15.00	50
Backcountry Use	2.80	
Backcountry Patrol Cabins	0.50	10
Day Use Areas	0.60	6
Madison River Basin (41F)		
West Entrance Area	48.90	200
Backcountry Use	2.80	
Backcountry Patrol Cabins	0.50	10
Day Use Areas	0.70	6
TOTAL	174.90	

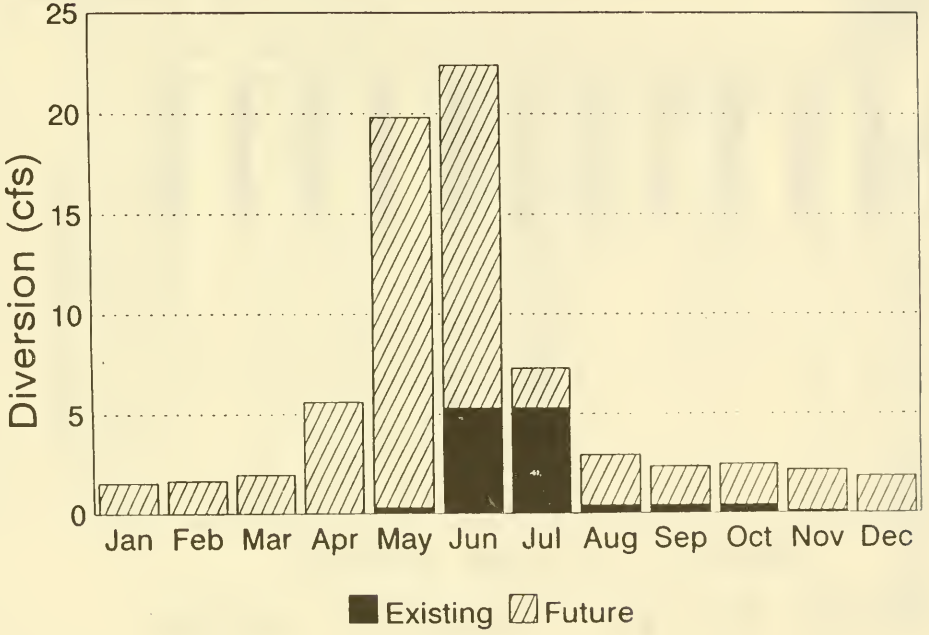
Proposed Controlled Groundwater Area

Yellowstone National Park area, Montana

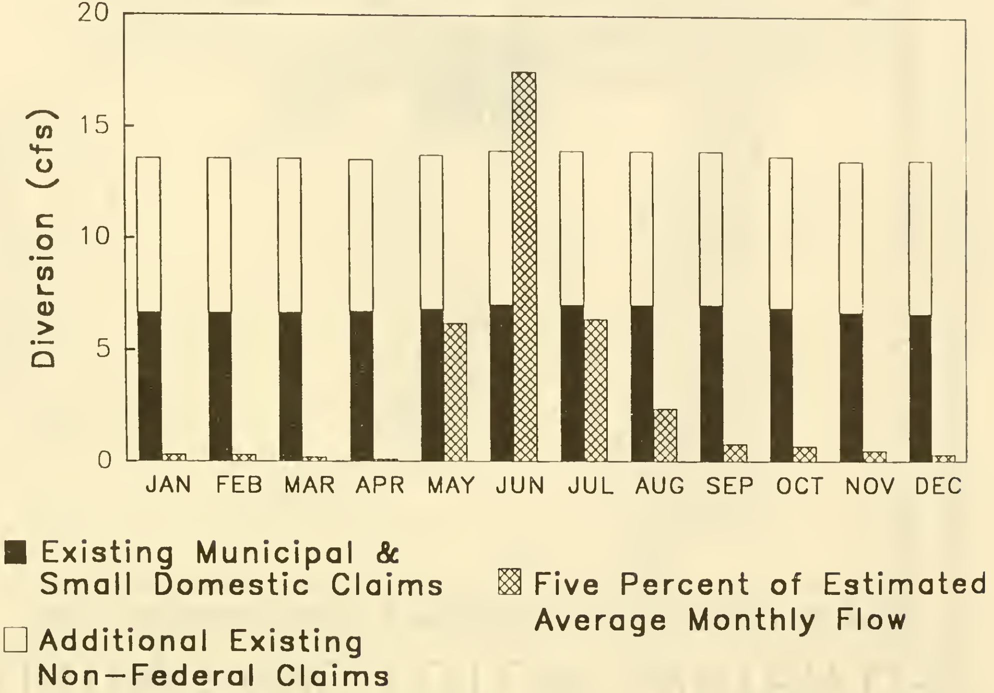


EXISTING AND FUTURE WATER USE

Non-Federal Water Development, Slough Creek



NON—FEDERAL WATER USES
Soda Butte Creek



Upper Yellowstone Defense Fund

Box 405 — Gardiner, Montana 59030

April 19, 1993

Testimony before the Subcommittee on National Parks, Forests and Public Lands and the Subcommittee on Energy and Natural Resources on April 22, 1993.

Mr. Chairman and Members of the Committee;

My name is Julia Page. I live in Gardiner, Montana, and own and run a river outfitting business here. My business as well as every other business in town is mostly dependent on tourism to Yellowstone Park. I am also president of the Upper Yellowstone Defense Fund which is a grass roots group that has been active since 1987 in in trying to protect the natural resources of our area from the environmental harm caused by the Church Universal and Triumphant.

We are strongly in favor of the Old Faithful Protection Act. We feel it is needed now before the CUT or any other selfish, aggressive, unscrupulous developer goes ahead with projects that are potentially harmful to Yellowstone's geothermal system. Right now, the CUT is so determined to push its own rights to do anything, that they are willing to put Yellowstone at risk. This is why we need the Old Faithful Protection Act. We must take the measures necessary to protect Yellowstone Park from being damaged.

The state of Montana has just shown leadership and committment to resource protection in ratifying the Federal Reserve Water Rights Compact between the state and the federal government. Unfortunately the state has not always acted this well. Last summer the state granted the CUT a certificate to its geothermal well despite the fact that in order to put the well to "beneficial use" it had to break a signed contract with the state.

This signed contract was part of the first environmental impact statement written for the CUT's developments. The signed Mitigation Agreement (Appendix B of the document) was the public's assurance that nothing would be done with the geothermal well until it had undergone thorough environmental review. But, when the CUT used its well last summer, one agency of state government said, "Stop, that's contrary to our agreement", while another state agency said, "Fine, here's your certificate of completetion, go ahead and use your well." The public's protection vanished. The Old Faithful Protection Act is necessary to provide the ironclad protection Yellowstone needs. It is clear that the state will not always have the will to stop this developer from doing harm to public resources.

Had Congress acted last year we would not even have this well to consider. Last June, CUT rushed through a crude plan to establish its water right. The "beneficial use" it put its well to was to fill a temporary pool located amongst some unoccupied trailers at an undeveloped site and then pump the water out every day to irrigate a field of wild mustard which they do not cultivate or harvest. This totally contrived use serves as the basis of the CUT's claim that the government is taking its private property. We need the protection of the Old Faithful Protection Act to forestall this kind of blatant profiteering and to protect Yellowstone Park's irreplaceable and very vulnerable geothermal resources.

Neither the Church Universal and Triumphant nor anyone else has a right to destroy the geothermal resources of Yellowstone Park; their private property rights do not extend that far. We all have a responsibility to see that Yellowstone is protected intact for future generations. Speaking for myself and the several hundred members of the Upper Yellowstone Defense Fund who live here in Park County, I urge you to pass this bill now.

Thank you.

Sincerely,

Julia Page

Julia Page

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June 29, 1992

The Honorable Dale Bumpers
Chairman
Subcommittee of Public Lands,
National Parks & Forests
SD 308
Washington, D.C. 20510

Re: H.R. 3359--Water Rights and Geothermal Well

Dear Mr. Chairman:

We are Montana counsel for the Church Universal and Triumphant, Inc. on water law matters. The Church has previously submitted testimony and materials to the Committee on Energy and Natural Resources concerning the above-referenced legislation, including a legal opinion from the Washington, D.C. law firm of Akin, Gump, Hauer & Feld in which we assisted and cosigned. We also provided the Committee with comments on the legal status of the Church's geothermal well by letter dated May 13, 1992. We specialize in water law.

Today the Church filed a Notice of Completion with the Montana Department of Natural Resources and Conservation for the appropriation of 32 gallons per minute, not to exceed 10 acre-feet per year, from the geothermal well the Church had previously drilled near the LaDuke Hot Spring. In our previous correspondence to the Committee, we have pointed out that the Church has the right to file such a Notice. The Notice was filed after the Church had put the water to beneficial use for a swimming pool and for irrigation, beginning on June 28. The Notice was filed pursuant to Section 85-2-306, Montana Codes Annotated.

In pertinent part, Section 85-2-306, MCA, provides as follows:

> . . . a permit is not required before appropriating ground water by means of a well or developed spring with a maximum appropriation of 35 gallons per minute or less, not to exceed 10 acre-feet per year . . . .

The statute further provides that an appropriator of ground water for 35 gallons per minute or less, not to exceed 10 acre-feet per year, can acquire a water right therefore simply by putting the water to beneficial use and filing a Notice of Completion. There is no requirement that any application for permit or other approval

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first be submitted to the Department of Natural Resources and Conservation. The acquisition of the water right is automatic by properly complying with the requirements of the Section, and the right legally comes into existence immediately upon the filing of the Notice of Completion. After coming, into existence, it is subject only to the Department's review of the Notice to ensure that the requirements of the statute were met. The priority date of such a right is "the date of filing of the Notice of Completion . . . ." Section 85-2-306, MCA.

Based upon the foregoing, and our knowledge of the Church's use of the water from the well, it is our opinion that the Church now has a legally protectible water right under Montana law for 32 gallons per minute, not to exceed 10 acre-feet per year, to appropriate and use geothermal water from the well.

Sincerely,

Ted J Doney by ao

Ted J. Doney
Attorney at Law

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